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ABSTRACT

The packet contains bibliographies, general suggestions, program ideas and descriptions of activities used in physical education and recreation programs for autistic and emotionally disturbed children. Bibliographies on autism are presented for the following topics: physical education and perceptual-motor experiences; recreation and play; and art, dance, and music. Separate bibliographies for emotionally disturbed children are provided for the following topics: physical education/physical activities/perceptual-motor experiences; recreation; art, music, drama, and dance, and outdoor opportunities. Two sections review ongoing programs and teaching activities for autistic and emotionally disturbed children. Journal reprints are included, along with brief listings of films, abstracts, organizations, and resources. (CL)

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PHYSICAL EDUCATION, RECREATION, AND RELATED PROGRAMS FOR AUTISTIC AND EMOTIONALLY DISTURBED CHILDREN

PREPARED AND DISTRIBUTED BY

Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC), 1201 Sixteenth Street, N. W., Washington, D. C., 20036

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This packet was prepared by Liane Summerfield, Information and Materials Assistant, Physical Education and Recreation for the Handicapped: Information and Research Utilization Center (IRUC).

Current federal and state legislation is reenforcing humanitarian philosophies to meet needs of everyone regardless of type or severity of handicapping condition. Therefore, increasing attention is being given to serving individuals with emotional conditions of various types and severities. Children and adults of all ages having minor upsets or neuroses as well as those with severe psychoses are being assisted through active participation in physical education, community recreation, school adapted physical education, and therapeutic recreation programs. Specific attention to autistic children is resulting in progress through new programs and innovative activities. This is indeed an exciting time in which many productive things are going on throughout the country.

In response to requests from personnel in various program settings for information and materials to assist in meeting needs of individuals and groups with various emotional conditions, IRUC, under direction of Liane Summerfield, has developed this indepth packet. Contents include information about a variety of resources--books, journal and newsletter articles, audiovisual materials, ongoing programs, research results, and personnel. This gives some idea as to where we are and what remains to be done in these areas for these populations. Since communication through sharing is so important to continued progress, readers are encouraged to contact IRUC about other appropriate resources not included in this packet. This type of cooperative interchange and exchange is vital to meeting needs of individuals in these categories through physical education, adapted physical education, recreation, therapeutic recreation, and related activity areas.

To each who has assisted in the development of this packet through input of ideas, suggestions, and materials, "Thanks; thanks alot." Special words of gratitude, appreciation, and a gigantic, "Extremely well done," are reserved for Liane Summerfield whose interest, dedication, and talents made this possible.

Julian U. Stein, Consultant
Programs for the Handicapped
Director, IRUC

March 1976

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INTRODUCTION

This packet was developed to explore a priority topic identified by parents, professionals, students, researchers, and others--physical education, recreation, and related areas for emotionally disturbed and autistic children. Programs in these areas, especially for autistic children, have not been numerous or well-publicized, and research is also lacking. Yet, with the current trend toward mainstreaming all handicapped persons into programs within public agencies, there is a great need for guidelines, models, and innovative ideas upon which to base physical education, recreation, and related programs.

There is also a great need to acquaint physical educators and recreators with the conditions of autism and emotional disturbance. Many misconceptions about these conditions prevail, including the notion that only highly specialized therapists can work with autistic and emotionally disturbed children. In reality, a good physical educator, recreator, teacher, or volunteer can work very successfully with any group of people once he/she has certain basic information about those persons' conditions and abilities.

Material dealing with both autistic and emotionally disturbed children has been compiled in this packet. The reasons for combining the two conditions in one packet are several: symptoms of autism and emotional disturbance are somewhat similar, blurring the distinctions between the two, which has led to (a) including children with both conditions in the same programs, (b) difficulties in accurately diagnosing affected children, and (c) some inaccurate use of the terms autism and emotional disturbance in program descriptions, articles, and research studies. These situations have made it difficult to separate the articles and program information on emotionally disturbed children from those dealing with autistic children. An additional important rationale for including both in the same packet is that activities and teaching suggestions in physical education, recreation, and related programs for autistic children often work just as well in programs for emotionally disturbed children.

This packet does not contain all the answers for working with autistic and emotionally disturbed children in physical education, recreation, and related programs. It was developed primarily to serve as a resource in these areas. Listings of organizations, periodicals, resource persons, on-going programs, and printed materials should assist interested individuals in obtaining more detailed information in their particular areas of need. Practical information for the reader, however, is presented through abstracts, article reprints, a special section on activities that work, and annotations of some bibliographic citations (not all bibliographic citations were annotated if the original source was not readily available). It is sincerely hoped that this information packet will result in new and improved programs for autistic and emotionally disturbed children.

EXPLANATION OF SYMBOLS USED IN BIBLIOGRAPHIES

The following symbols were used throughout the bibliographies included in this packet, to assist readers in obtaining needed materials.

+ Available from IRUC for reprint. Cost for 25 pages is $2.50 (minimum order); each additional page is .10. All orders must be prepaid (for AAHPER members, subtract 20%).

@ Abstract available from IRUC. Cost is $2.50 for 10 abstracts (minimum order), $2.00 for next 10 abstracts, and 10¢ per abstract in excess of 20.

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AUTISTIC CHILDREN

Autistic children often are given many labels in the course of their lives--emotionally disturbed, psychotic, schizophrenic, mentally retarded, deaf, blind, aphasic. The confusion arises because autistic children, due to the particular character of this condition, often appear to be blind, deaf, aphasic, and/or mentally retarded. In addition, the distinction between autism, schizophrenia, and emotional disturbance is especially blurred because of the difficulties in behavior and interpersonal relationships that characterize disturbed, schizophrenic, and autistic individuals. Autistic children may, in fact, become emotionally disturbed as a result of retarded social, emotional, and personality development; and sources estimate that 75% of autistic children are retarded in some way for life. (2) However, it is important to recognize that autism is a disorder with its own unique symptoms and characteristics differentiating it from mental retardation, emotional disturbance, psychosis, blindness, deafness, and aphasia.

The National Society for Autistic Children notes that:

> The autistic child appears to suffer primarily from profound central processing disorders, i.e. a selective impairment of his cognitive and/or perceptual functioning, the consequences of which are manifested by sensory-motor, cognitive, social and language development impediments which reduce the ability to understand, communicate, learn, and participate in social relationships. (9)

One or all of the following may characterize an autistic child:

- Impaired or complete lack of social and emotional relationships.
- Repetitive nongoal-directed body motions or behaviors (such as constant rocking, waving hand in front of face, striking face with fist).
- Repetitive use of toys and objects, or preoccupation with certain objects (light switches, lint, string).
- Resistance to change and extreme distress when minor changes in the environment or routine are planned or undertaken.
- Peculiar perceptual and motor experiences, such as "looking through" people, seeming not to see certain objects, not hearing some sounds and overreacting to others, walking on tiptoes, hyperactivity or passivity, seeming insensitivity to pain.

- Severe speech impairment, language difficulties.

- Retardation in some areas, often accompanied by superior abilities or skills in other areas.

Autism is a relatively rare condition, affecting between four and five children per 10,000, with boys affected about four times as often as girls. It is usually noticed during the first two and one-half years of life. Often after the child has already started talking or walking he/she will abruptly cease communicating and behaving in age-appropriate fashion. Autism does not appear to be genetic, although in the case of twins both are usually autistic.

Historically, autistic children have been called everything from village idiots to witches. They were often considered possessed by demons or evil spirits. Treatment took the form of religious ceremonies, threats, torture, and--if nothing else worked and the individual was a nuisance to the community--abandonment or death. Mental institutions became popular receptacles for autistic persons, not only facilitating abandonment but keeping the abandoned ones out of the community's view.

Sigmund Freud made the first attempt at explaining autism when he characterized it as an inner rage. Soon after Freud's interpretation became widely known, psychotherapy and other psychiatric treatment approaches such as play therapy became popular, although unsuccessful, methods of dealing with autism.

More recently, the cause of autism had been attributed to the parents, especially the mother, of the autistic child. Theorists held that the parents were cold, unemotional people who did not give their developing child enough affection. A later version of this theory proposed that autistic babies were born with an unresponsive nature that caused parents to treat them mechanically. Consequently, treatment focussed on family counseling and parent-centered psychiatric approaches. Research has for the most part disproved both these theories.

Today, while the cause of autism is still unknown, researchers are generally convinced that autism has a physical or organic cause. A growing number feel that the autistic child has a biochemical imbalance; others hypothesize that brain injury somehow occurring before birth accounts for the autistic child's perceptual problems and subsequent behavior. There is still no widely accepted treatment approach, primarily due the disagreement over autism's cause. The most common treatments today are:

> Behavior modification--this involves discouraging the child's undesirable behavior by negatively reinforcing it (by spanking, taking away privileges) and/or by positively reinforcing desired behavior (by giving a favorite food, a hug).

- Special education--in the case of autistic children this usually consists of academic, social, daily living, and motor skills presented in a public or semi-institutional setting either totally separate from or partially integrated with non-handicapped children.

- Drugs--various drugs to lessen hyperactivity and/or relieve symptoms of aggression or depression have been used.

- Dietary supplements--vitamins and minerals have been given in varying quantities to autistic children, with differing results.

- Sensory-motor programs--the most recently publicized of these is based on Doman-Delacato's theory of neurological organization, in which parents and therapists attempt to identify the autistic child's perceptual problem, correct it, and proceed through the stages of development that the child might have missed.

- Residential therapy--this is too often the only alternative a parent might have. The autistic child may be institutionalized for various forms of therapy and/or custodial care for an indefinite length of time. Over half of all autistic children are eventually institutionalized (2); this trend may be changing with current emphasis on normalization and increasing numbers of special education programs in the community.

The prognosis for autistic children is variable. Since the cause is only guessed at, there is no cure. However, the symptoms (inappropriate behavior, poor language skills, perceptual-motor deficits) are sometimes successfully treated.

General References on Autism

1. Bettelheim, Bruno. The Empty Fortress: Infantile Autism and the Birth of the Self. New York: The Free Press, 1967. 484 pp.

2. Clark, Matt. Troubled children: the quest for help. Newsweek, 52-56, 58, April 8, 1974.

3. Cohen, Donald J., and Barbara Caparulo. Childhood autism. Children Today, 4(4): 2-6, 36, July-August 1975.

4. Delacato, Carl H. The Ultimate Stranger: The Autistic Child. Garden City, New York: Doubleday and Company, Inc., 1974.

5. Fact sheet on the handicapped: autism. Programs for the Handicapped, 74(3): 2-7, April 1974.

6. Kanner, Leo. Follow-up study of eleven autistic children originally reported in 1943. Journal of Autism and Childhood Schizophrenia 1(2): 119-145, April-June 1971.

7. Lovaas, O. Ivar. A behavior modification approach to the treatment of autistic children. Journal of Autism and Childhood Schizophrenia, 4(2): 111-129, March 1974.

8. Morrison, James K. Labeling: a study of an 'autistic' child. Journal of Family Counseling, 2(2): 71-80, Fall 1974.

9. National Society for Autistic Children Newsletter, 7(1): 6, February 1975.

10. Rutter, Michael, editor. Infantile Autism: Concepts, Characteristics and Treatment. Baltimore, Maryland: Williams and Wilkins Company, 1971. 328 pp.

11. Wing, Lorna. Children Apart: Autistic Children and Their Families. Albany, New York: National Society for Autistic Children (169 Tampa Avenue, 12208), 1974. 20 pp.

Written by Parents of Autistic Children:

12. Greenfeld, Josh. A Child Called Noah. New York: Holt, Rinehart, and Winston, 1972. 191 pp.

13. Hundley, Joan Martin. The Small Outsider: The Story of an Autistic Child. New York: St. Martin's Press, Inc., 1971. 150 pp.

14. Park, Clara Claiborne. The Siege. New York: Harcourt, Brace and World, Inc., 1967. 279 pp.

15. Tomaro, Malinda S. Learning to live happily with Jimmy. Exceptional Parent, 1(6): 36-39, April-May 1972.

GENERAL SUGGESTIONS FOR WORKING WITH AUTISTIC CHILDREN

> ...for the autistic child, less than great is as good as useless because they cannot learn from their environment. We all know that the course of this disorder, without proper intervention is downhill so a mediocre classroom is worse than nothing. It has value in that it gives the parents a few hours a day of respite, but it also lulls them into a false sense of security...*

As Anne D. Walsh's comments indicate, the adage, "anything is better than nothing," may not hold true for autistic children. All children deserve well-planned recreation, physical education, dance, art, music, drama, and other programs led by trained and qualified professionals and volunteers. Autistic children, because of their unique handicaps, deserve this planning and leadership even more.

The characteristics of the autistic child suggest certain considerations for planning a physical education, recreation, or related program, as illustrated by the chart on the next page.

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*Anne D. Walsh, Project Director, Santa Barbara County Autism Dissemination Project, Santa Barbara, California, in a letter to the editor, NSAC Newsletter (Vol. 8, No. 1, January 1976), p. 3.

CHARACTERISTICS OF CHILD	PROGRAM-PLANNING CONSIDERATIONS	LEADERSHIP CONSIDERATIONS
1. Resistance to change.	1. Keep program format the same.	1. Try to assign same leaders to children or groups of children for each activity, thus minimizing necessity for children to become accustomed to new leaders.
2. Lack of eye contact with others; no indication of understanding spoken words.	2. Include activities that can be explained by demonstration or in a few words.	2. Get child's attention before attempting to demonstrate or explain; once eye contact is established, follow immediately with one-word or short phrase directions.
3. Insensitivity to pain; apparent unconcern for personal safety.	3. Conduct program in a relatively confined area free from hazards; maintain low (3:1) child to staff ratio.	3. Watch closely.
4. Repetitive nongoal-directed body motions or behaviors.	4. Structure program and environment so that child does not have opportunity to engage in undesirable behaviors; keep program moving; do not include activities that keep children waiting in line for their turn.	4. Do not reinforce these behaviors by giving child undue attention when he/she engages in them.
5. Retardation in some areas often accompanied by superior abilities in other areas.	5. Include initial assessment and periodic re-evaluation of abilities as part of program, so that both remedial activities and activities making use of superior abilities are provided for each child.	5. Conduct initial assessment of abilities (in whatever area program is focused); periodically re-evaluate abilities; develop individualized program for each child based on strengths and weaknesses.
6. Preoccupation with certain objects.	6. Be flexible in planning program to allow for varied interests of participants.	6. Use preoccupations as jumping off points for future activities (for ex., child who is preoccupied with string could start collection of fibers, display, and identify these).

CHARACTERISTICS OF CHILD	PROGRAM-PLANNING CONSIDERATIONS	LEADERSHIP CONSIDERATIONS
7. Perceptual-motor difficulties.	7. Include variety of perceptual-motor activities in program.	7. If child has difficulty copying movements, bring his body through the desired motion; be prepared to teach parts of an activity before child will master whole activity.

PHYSICAL EDUCATION AND PERCEPTUAL-MOTOR EXPERIENCES FOR AUTISTIC CHILDREN

Because of the many perceptual and motor problems associated with autism, physical education, physical activity, and specific perceptual-motor experiences are more and more being recognized as a necessary part of the autistic child's total treatment program. These experiences are being offered through community recreation facilities, public schools, special schools, and private agencies (see pp. 69-75 for program descriptions). Sadly, there is not a great deal of literature in this area written specifically about autistic children. Several factors account for this lack: (1) many articles and papers dealing with physical education/activities for autistic children falsely identify the children as psychotic or mentally retarded, thus making the materials difficult to identify as being about autistic children, (2) this whole area has only recently been given attention as valuable for the autistic child, (3) autistic children were often excluded from participating in physical education programs because of their peculiar behavior and language difficulties, (4) papers and articles written before the information system boom were not catalogued, resulting in the loss of many important materials, and (5) a limited number of conferences and symposia in this area have been held, which contributes to a lack of research and writings.

The 14 articles, papers, and books listed in this section illustrate two important points: autistic children are capable of learning motor skills, and they are able to participate in physical education classes. Activities such as swimming (1,5,6,8), general movement education (1,5,11,13), and trampoline (5,14) have been included in physical education and perceptual-motor programs with gratifying results. In addition, activities on the balance beam (3) and programs of ball skills (8,12) have been found effective. Three of the research-oriented articles include an evaluation component (1,3,5), and all three found their programs of physical education/perceptual-motor activities to be beneficial to the autistic participants.

It is interesting to note that physical activity has other benefits besides improved motor performance. Davis indicated that cooperative behavior, self-control, and socialization were enhanced by balance beam activities, and Hamilton et al. found that a program of movement education in conjunction with speech therapy stimulated communication growth of autistic children.

Leadership and program planning techniques are discussed in several of the sources (4,6,10,12,13). Although a child to staff ratio of 3:1 was suggested for safety reasons under <u>General Suggestions for Working with Autistic Children</u> (p.7), a child to staff ratio of 1:1 may be necessary when first working with an autistic child (6,12). The child may require a great deal of individual attention to master basic skills that are the prerequisites for participation in physical education class.

Research Needs

The whole area of physical education and perceptual-motor experiences for autistic children has only begun to be explored. Unlike an area such as physical education for mentally retarded individuals, this does not have years of research behind it. The following, then, represents only a partial list of research needs; these should call to mind many others.

- What facets of the autistic child's development does physical education enhance (if any).
- What are the comparable effects of demonstration, demonstration coupled with verbal explanation, and explanation alone in teaching the autistic child a motor skill.
- At what age are various physical activities most effective in enhancing the child's development.
- How far should a skill be broken down into its component parts to be taught most effectively.
- What college and universities offer professional preparation courses in physical education for autistic children; what are the courses; how do physical education graduates feel that these courses have prepared them to work with autistic children.
- How are parents involved in their child's physical education class.
- Do autistic children make better gains in perceptual-motor development in segregated or integrated classes; how have autistic children been successfully integrated into regular physical education classes.

Bibliography on Physical Education and Perceptual-Motor Experiences for Autistic Children

1. Best, J. F., and J. G. Jones. Movement therapy in the treatment of autistic children. Australian Occupational Therapy Journal, 21(2): 72-86, June 1974. (Journal published at Box 172, P.O. Subiaco, Western Australia 6008).

   A swimming program and a movement education program designed to achieve self-motivated gross motor activity in children with autism are described. Three autistic children took 30 swimming lessons (2 1/2 hours per week) and 10 movement education sessions (1 1/2 hours per week), while a fourth child had 30 movement education sessions (3 1/2 hours per week). Results indicated that a physical activity program may be of great value in the treatment of autism, because autistic children are capable of learning motor skills to a discernible level.

2. Daniels, Arthur S., and Evelyn A. Davies. Adapted Physical Education, 3rd edition. New York: Harper and Row, 1975. 464 pp. $12.95.

   Includes sections on neurological disorders and emotional instability and behavior problems. Other chapters cover aquatics and camping for exceptional children.

+3. Davis, Daniel H. The balance beam: a bridge to cooperation. Teaching Exceptional Children, 7(3): 94-95, Spring 1975.

   Balance beam exercises were developed by the author to promote cooperation and socialization at Benhaven (school for multiply handicapped, brain damaged, and autistic children). Balance, control of hyperactivity, cooperation, and socialization were objectives of having two children balance objects on a tray or wands between them while they walked the length of a balance beam. Author notes that these activities have carry-over value to vocational training.

+4. Dewey, Margaret. The autistic child in a physical education class. Journal of Health, Physical Education, and Recreation, 43(4): 79-80, April 1972.

   This article was written in an attempt to help physical educators understand the special needs and problems of autistic children. It is especially important for physical educators to realize that autistic children are neither willfully disrupting class and behaving erratically nor willfully ignoring the teacher and misinterpreting instructions. The autistic child may truly stand to benefit more than all others in the school from an individualized physical education program that is mindfull of his/her limitations.

+5. Hamilton, Alicita, Pride Anderson, and Karol Merten. Learning to talk while developing motor skills. Journal of Health, Physical Education, and Recreation, 43(4): 30-81, April 1972.

Movement education is emphasized at the University of Denver's Speech and Hearing Center, where young children with a variety of communication handicaps participate daily. Instructors narrate about the child's activity as he/she tries out jungle gym, climbing dome, walking boards, trampoline, swimming pool, and various other activities. Children also receive individual speech therapy. Center records indicate that language growth was demonstrated by the children, with the stimulation for growth coming from many sources.

+6. Hurley, Maryl. Relating to reality with water safety. NAGWS Aquatics Guide, Patricia Davis, editor. Washington, D. C.: American Alliance for Health, Physical Education, and Recreation, 1975, pp. 24-28.

Author feels that autistic children, teenagers, and adults can benefit from a water safety program and become competent swimmers, despite their perceptual handicaps. Safety considerations such as water temperature, buddy system, and staff participant ratio are discussed. Successful teacher characteristics (flexibility, patience, enthusiasm) and good teaching principles are briefly presented.

7. Kovattana, Patricia M., and Helena C. Kraemer. Response to multiple visual cues of color, size, and form by autistic children. Journal of Autism and Childhood Schizophrenia, 4(3): 251-261, September 1974.

+8. Mosher, Richard. Perceptual-motor training and the autistic child. Journal of Leisurability, 2(3): 29-35, July 1975.

Describes a summer perceptual-motor experience (5 hours per day, 5 days per week) for autistic children at the University of Ottawa. Program consisted of eight stations at which children spent varying amounts of time depending on their needs: (1) sequential skills I (creeping, crawling, walking, jumping), (2) sequential skills II (catching, throwing, kicking), (3) body image development, (4) manual dexterity, (5) vestibular stimulation, (6) swimming, (7) cognitive skills, and (8) arts and crafts.

9. Ornitz, Edward M. The modulation of sensory input and motor output in autistic children. Journal of Autism and Childhood Schizophrenia, 4(3): 197-215, September 1974.

10. Schindler, Robert. Physical education of the autistic child. Pepper Pike, Ohio: Beech Brook (3737 Lander Road, 44124), n.d. 14 pp.

This is a "how-to" paper on teaching and reaching the autistic child. The first part of the paper concentrates on the importance of observation and building trust. Author notes that he provides an unstructured physical education class for children initially so that he can observe their reactions to eye contact, verbal communication, and touch. This absence of intrusion into the child's world naturally leads to development of trust. The remainder of the paper focusses on four major areas of teaching: presentation, motivation, timing, and amount of control.

11. Sewell, Sandra. The teacher's contribution to the treatment of infantile autism. Slow Learning Child, (Brisbane, Australia), 17(2): 89-96, 1970.

The education of autistic children should include perceptual discrimination skills, sensory-motor skills, social behavior, peer and family activities, and academic subjects. The teacher's role in this educational program is described.

+12. Singleton, Dorothy R. Sensori motor development and autism. Paper presented at Workshop on Early Childhood Development, California State University, Northridge, November 1975. 5 pp.

Considerations in planning a sensori motor program for autistic children are presented. Sensori motor characteristics of autistic children include limited adaptive motor skills for work and play, limited ability to imitate body movements, poor eye contact, and deficiencies in fine motor performance, gross motor performance, and spatiality (with highest proficiency being in fine motor area and lowest in spatiality). The sensori motor program should concentrate on spatiality and basic play and work skills; a structured learning environment is necessary to ensure success. Teaching hints are listed.

+13. Singleton, Dorothy. A physical education program for the autistic child. Paper presented at the Third National Conference on Physical Activity Programs and Practices for the Exceptional Individual, Long Beach, California, 1974. 3 pp.

The development of a successful physical education program for the autistic child depends upon a balance between the child's characteristics, the content of the program, and the chosen treatment approaches. Each of these areas is discussed in terms of its relationship to the physical education program.

+14. Strong, Sue, and Dorothy Miners. A sensory-motor program for autistic children and adolescents at Camarillo State Hospital. Physical Activity Programs and Practices for the Exceptional Individual. Proceedings of Fourth National Conference, November 14-15, 1975, pp. 142-151.

Describes the condition known as early childhood autism, including use of senses by autistic children. An evaluation and treatment program was developed for autistic children and adolescents at Camarillo (California) State Hospital, based on A. Jean Ayres' theories of sensory integrative dysfunction. The program aims to normalize sensory dysfunctions and improve motor problems. A typical program includes tactile stimulation, rolling, therapy ball, scooter board, and trampoline.

RECREATION AND PLAY FOR AUTISTIC CHILDREN

The only located comprehensive study of the recreational interests of autistic children was done by Margaret Dewey while she was Recreation Chairman of the National Society for Autistic Children (2). Dewey analyzed over 200 questionnaires completed by parents and professionals from schools, hospitals, and treatment facilities. One of the most interesting aspects of her study is that traditional concepts of recreation cannot be applied to autistic children. These children pursue many seemingly compulsive activities, such as tearing paper, taking things apart, driving nails, sharpening pencils, and digging holes, with such enjoyment that these activities must surely be considered recreation to them.

Some of the recreation activities that autistic children enjoy, according to the Dewey study, are:

- Collections--popular with many autistic children, these included rocks, lint, string, sticks, straws, pieces of fabric.
- Music--listening was especially popular, followed by singing.
- Travel--despite the fact that resistance to change is a marked characteristic of autistic children, many loved to travel both far from home and with their parents on local errands.
- Arts and Crafts--pasting, clay, coloring, and drawing were enjoyed.
- Trampoline--this was the most popular apparatus activity listed.
- Swimming--this was also listed as a favorite sport by many.
- Bicycle Riding--a favorite of some.

Despite the fact that recreation is becoming widely recognized as a basic human need, Dewey's study almost stands alone representing the literature on recreation and play for autistic children. Only 10 sources were located for inclusion in this section. These writings deal with play as therapy (5,6), the use of recreational games in learning (4,10), and the play behavior and use of toys by autistic children (1,3,7,8,9). If any conclusions can be drawn from the studies included here, they are that autistic children exhibit bizarre play behavior and use of toys, and that this behavior may possibly be used in diagnosing autism.

As with physical education, the literature on recreation and play for autistic children is lacking for several reasons: (1) autistic children have been mis-diagnosed or lumped into the same category with mentally retarded or psychotic children, reducing the amount of literature readily identified as being about autistic children, (2) recreation is only now being recognized as a basic human need and a valuable tool for treatment, (3) the nature of this disorder has excluded these children from participation in recreation programs, and their peculiar play behavior has made recreators reluctant to develop programs for them, (4) many fine articles and papers have been lost through the years due to lack of cataloguing before the information system boom, and (5) no known conferences or symposia specifically in this area have been held, limiting the research and writings that such gatherings stimulate.

Research Needs

Investigation into the many aspects of recreation and play for autistic children is needed, especially now that increased numbers of children who used to be institutionalized are being sent to public school and wish to participate in public recreation opportunities. Recreators working with these children will need programing and leadership guidance. The following areas are suggestions for research:

- Determine the effects of structured, semi-structured, and free-play recreation environments on autistic children.
- Investigate the reliability of diagnosis through observing play behavior of children.
- What leisure counseling techniques are successful with adolescents and/or adults who were diagnosed as autistic in childhood.
- How have autistic children been integrated into regular recreation programs.
- Does recreation contribute to the development of the autistic child.
- Survey colleges that have courses preparing recreation majors to work with autistic children; do these courses supply the competencies required of recreators who are actually working with autistic children.
- Replicate Dewey's questionnaire study of recreational interests of autistic children.
- What are the values of recreation activities in education of autistic children.

Bibliography on Recreation and Play for Autistic Children

1. DeMyer, Marian K., Nancy A. Mann, James R. Tilton, and Lois H. Loew. Toy-play behavior and use of body by autistic and normal children as reported by mothers. Psychological Reports, 21(3): 973-981, 1967.

   Questionnaires were administered to mothers of 30 two to seven year old autistic and 30 normal children. Responses indicated that autistic children were more ritualistic and normal children more age-appropriate in play behavior. An observation study confirmed questionnaire results.

*2. Dewey, Margaret A. Recreation for autistic and emotionally disturbed children. Washington, D. C.: Superintendent of Documents, U. S. Government Printing Office (20402), 1973. (ED 094 495, $1.50 papercopy).

   The recreational interests of autistic children, based on an extensive questionnaire survey of parents, are detailed and discussed. Some of the children's interests included collections, travel, music, playground activities, and games and sports. Many children had specialized interests (astronomy, mathematics), and still others enjoyed activities not usually considered recreation (shoveling snow, grocery shopping, driving nails).

3. Koegel, R. L., et al. Increasing spontaneous play by suppressing self-stimulation in autistic children. Journal of Applied Behavior Analysis, 7(4): 521-528, Winter 1974.

   Appropriate play with toys was studied in two autistic children (CA = 6 and 8 years) who had high occurrences of self-stimulatory behavior.

4. Maurer, Adah. Peek-a-boo: an entry into the world of the autistic child. Journal of Special Education, 3(3): 309-312, 1969.

   Presents a case study of a 6 year old boy who responded to playing peek-a-boo with his teacher. Author feels this game addresses the universal need for recognition and reassurance.

5. Oki, Tadahiko, et al. Clinical psychological research in infantile autism: play therapy. Annual Report of the Yasuda Life Welfare Foundation (Tokyo), 1970, pp. 1-14.

   The significance of play therapy for the treatment of infantile autism is discussed. Play therapy provides opportunities to communicate with children through physical contact. Results suggest that autistic children do not isolate themselves from their environment, as has been thought.

6. Richer, John M., and Stephen Nicoll. The physical environment of the mentally handicapped: IV. A playroom for autistic children, and its companion therapy project: a synthesis of ideas from ethology, psychology, nursing and design. British Journal of Mental Subnormality, 17(33, Pt. 2): 132-143, December 1971.

7. Tilton, James, and Donald R. Ottinger. Comparison of the toy play behavior of autistic, retarded, and normal children. Psychological Reports, 15: 967-975, 1964.

   Observations were made of autistic, mentally retarded, and normal children as they engaged in 20-minute free play periods. Observers indicated which of a number of categories of toy use occurred during play. Play of autistic group included higher proportions of both oral and repetitive uses of toys; in addition, autistic children displayed fewer distinctly different acts than retarded and normal children in toy play.

8. Ueda, Reiko. Developmental study of play behavior through play interviews. Japanese Journal of Child Psychiatry, 10(4): 210-221, 1969.

   Normal, mentally retarded, and autistic children were observed during play. Younger autistic and retarded children showed no differences in play. Retarded participants, however, showed much more interest in the observer than autistic children did. Behavior of autistic children suggested that they followed a distinctly different process of development than normal and retarded children.

9. Weiner, Barbara J., Donald R. Ottinger, and James R. Tilton. Comparison of the toy-play behavior of autistic, retarded, and normal children: a reanalysis. Psychological Reports, 25(1): 223-227, 1969.

   Reanalyzed data from previous study (Tilton and Ottinger, 1964) by multiple discriminant function analysis. The combinational category of toy play emerged as the most important variable in discriminating between all three groups. Toy-play observation method is suggested for use in diagnosis and evaluation of young children.

10. Wakabayashi, Shinichiro, and Takaaki Ishii. A consideration on the school education of the autistic children. Japanese Journal of Child Psychiatry, 11(3): 129-143, 1970.

    Nine autistic children attending elementary school were studied to determine educational considerations and methods best suited to such children. Essential are psychotherapeutic attitude of school personnel, use of autistic children's interest in letters, numbers, crafts, and drawing in teaching them, good parent-teacher relationships. It is suggested that the presence of language and volition might indicate educability.

ART, DANCE, AND MUSIC FOR AUTISTIC CHILDREN

Art, dance, and music are three disciplines that may either be part of a recreation program or used as forms of therapy by themselves. As with physical education and recreation, not much has been written about art, dance, and music for autistic children. The reader will note, however, that literature in these areas is overwhelmingly concerned with their therapeutic aspects.

The ten sources in the bibliography concluding this section describe various programs and techniques in art, music, and dance for autistic children. These disciplines are seen as benefiting the autistic child's self-confidence (1,8), language and speech (2, 8), responsiveness (1), body awareness and movement (2,3,8), and prosocial behavior (10). The majority of the articles, papers, and books focus on the therapeutic aspects of the three disciplines. Specifically, eight sources cover music (6,7,9) and music therapy (1,2,4,8,10), one source is devoted to dance therapy (3), and one book is about art activities for autistic children (5).

The studies which contained evaluative components (2,3,4,8,10) found that music and dance positively affected autistic children. Due to the small number of studies and the difficulty in reviewing their methodology, however, it is difficult to arrive at any conclusions as to the actual benefits of dance, art, and music.

Research Needs

Research in these areas has only just begun with autistic children, so many possibilities for research are open:

- What are specific benefits of each discipline; what aspects of the child's treatment program are enhanced by each.
- What are the differences between art, music, and dance as therapy and art, music, and dance as recreation in the treatment of autistic children.
- Survey competencies required of professionals in art, music, and dance who work with autistic children.
- Follow-up on art, music, and dance as lifetime pursuits of autistic children.
- What community opportunities in these areas are open to autistic children.

Bibliography on Art, Dance, and Music for Autistic Children

1. Beresford-Peirse, Sybil. Telling the Christmas story. Special Education, 59(2): 15-16, 1970.

   A program of individual music therapy in a school for autistic children utilized the narration of the Christmas story to enhance responsiveness and self-confidence of the children. Each child was assigned a singing role, and simple methods were used to help them identify with the characters.

2. Cartwright, Joan, and Geraldine Huckaby. Intensive preschool language program. Journal of Music Therapy, 9(3): 137-146, Fall 1972.

   Reports on a 9-week preschool language program involving music therapy for eight autistic and emotionally disturbed residents (CA = 6-11 years) of a state mental hospital. Program consisted of songs to stimulate verbalization, introduce basic concepts, and serve as background music for exercise, plus finger play songs for body awareness. Verbal Language Development Scale scores and Peabody Picture Vocabulary Test scores improved over the course of the program.

3. Huberty, C. J., J. P. Quirk, and W. Swan. Dance therapy with psychotic children. Archives of General Psychiatry, 28(5): 707-713, May 1973.

   Development and evaluation of a dance program conducted in a day care unit for psychotic children are described. The program was designed to modify a variety of irregular and disordered body movement patterns common to psychotic children.

4. Hudson, Wayne C. Music: a physiologic language. Journal of Music Therapy, 10(3): 137-140, 1973.

   Research findings have been compiled in this article to support the contention that music therapy is a useful adjunct to psychotherapy in treatment of schizophrenia and autism.

5. Lindsay, Zaidee. Art and the Handicapped Child. New York: Van Nostrand Reinhold Company, 1972. 144 pp.

   A brief chapter of this book is devoted to art for the autistic child. Activities are suggested in the areas of drawing, painting, modeling, carving, placing, printing, and puppets.

6. Merrill, J. W., Jr. Observations concerning effects of selected types of background music on the free play activities of autistic children. Lexington, Kentucky: University of Kentucky, 1972.

7. O'Connell, Thomas S. The musical life of an autistic boy. Journal of Autism and Childhood Schizophrenia, 4(3): 223-229, September 1974.

8. Ruttenberg, Bertram A. Music therapy for psychotic children under seven. Final Report, National Institute of Mental Health Grant MH-982, 1967.

Describes techniques developed and implemented to facilitate establishing contact with autistic children through music therapy. Children's responses to these techniques were observed and recorded. Music therapy was found to be valuable in stimulating sense of self, mastery, greater ego control, and vocalization.

9. Sherwin, Albert C. Reactions to music of autistic (schizophrenic) children. American Journal of Psychiatry, 109: 823-831, May 1953.

Observations of three autistic children indicated that they became unusually absorbed in music, had rote memories for melody, and preferred singing to speaking. A possible association was noted between improvement and decreasing intensity of interest in music. Although this was somewhat of an uncontrolled study, it is a starting point for further investigation.

10. Stevens, Emily, and Frank Clark. Music therapy in the treatment of autistic children. Journal of Music Therapy, 6(4): 98-104, 1969.

Systematically assesses social effects of music therapy on autistic children. Five autistic boys (CA = 5-7 years) were evaluated before and after a music therapy program. Significant improvement in some prosocial behaviors was noted at the conclusion of the study.

EMOTIONALLY DISTURBED CHILDREN

Emotionally disturbed is a term that is widely misused and applied to persons with a variety of conditions, from mild and temporary disturbances to severe and chronic disorders. Other terms which are often used interchangeably (though not necessarily correctly) with emotional disturbance are behavior disorder, mental illness, neurosis, and schizophrenia. Emotionally disturbed children are sometimes incorrectly classified as mentally retarded because they have difficulty in testing situations. In fact, the classification of a child as emotionally disturbed may depend entirely upon who is doing the classifying--teacher, psychologist, medical doctor, or other professional.

Because emotional disorders can only be identified on the basis of observable behavior, emotional disturbance is defined in behavioral terms. Most sources agree that the emotionally disturbed child exhibits rigid and inflexible behavior that limits his/her ability to adapt to the environment. One source characterizes the emotionally disturbed child as "'a human system in distress...disruptive pattern of human-environment exchanges.'" (10, pp. 22-23) Tucker stresses that there must be a differentiation between children with emotional problems, which are not handicapping, and those who are emotionally disturbed, which severely impairs ability to cope effectively with persons, problems, and day-to-day situations. (11, p. 179)

In general, emotionally disturbed children are characterized by the following:

- Impaired ability to form interpersonal relationships with others; deficient social skills.
- Inappropriate emotional responses (depressed, widely fluctuating moods, inflexible, apathetic, in need of immediate gratification).
- Learning difficulties, including short attention span, inability to follow directions, poor work habits.
- Perceptual-motor difficulties.
- Excessive behaviors (hyperactivity, aggression, withdrawal, fantasy life).

Note that there are behavioral similarities between autistic and emotionally disturbed children, in that children with both conditions have impaired interpersonal relationships, learning difficulties, and inappropriate emotional responses. Emotionally disturbed children, however, do not exhibit peculiar perceptual-motor experiences, language and speech problems, and preoccupation with objects as autistic children do.

By conservative estimates there are over 1.4 million children under 18 years of age in the United States today with emotional problems that are severe enough to require immediate psychiatric care. (5, p. 1; 3, p. 52) Some experts estimate that over one-fourth of this figure represents depressed children. (3, p. 56) In 1970 approximately 556,000 children were classified by public schools as being emotionally disturbed, a figure which does not even include children who are emotionally disturbed and handicapped in some other way as well. (12, p. 1) As with autism, boys are between four and five times as likely to become emotionally disturbed as girls. Obviously, the problem is a large one involving a substantial percentage of the population under 18 years of age in this country.

The cause of emotional disturbance is not completely clear, although most sources do agree that the home environment plays a greater role than it does in autism. Some of the factors listed most often as causes of this condition are neurological impairment occurring before birth, chemical imbalance that is either genetic or related to as yet unidentified conditions, and relationship with the parents. Because the child and the environment are constantly interacting, environmental factors cannot easily be separated from organic ones in determining the causes of and subsequent treatment for emotional disturbance. Morse observes, "children thought to have no capacity for self-control have sometimes spontaneously discovered new powers of control when they knew the jig was really up." (6, p. 140)

Throughout history emotionally disturbed children, due to their deviant and puzzling behavior, have been accorded very little humane and sensitive treatment. They have been locked up in jails and mental institutions and sometimes condemned to death as criminals or witches. These children were not really studied until the 20th century, particularly in the 1930's when the term <u>emotionally disturbed children</u> was first used.

Some of the more common treatment approaches are:

- <u>Drugs</u>--a variety of anti-depressants, amphetamines, and tranquilizing drugs have been used to alleviate problem-behaviors and emotional difficulties; a controversy currently exists over the sometimes indiscriminate use of these drugs and their adverse effects on the child's physical growth and development.

- <u>Special Education</u>--this was minimal in the 1930's and 1940's because of the focus on the Depression and World War II. In the 1950's special education consisted of removing the disturbed child from the regular class. Today's concerted efforts emphasize educating the disturbed child in as normal an environment as possible, perhaps even a regular class supplemented by individual tutoring by a resource teacher.

- Psychiatric Treatment--either on an inpatient or outpatient basis the disturbed child requires some sort of psychiatric help. This can take many forms, such as individual counseling, group therapy, family therapy, play therapy, art therapy, and various types of behavior modification.

- Camping--numerous special education classes and outpatient psychiatric facilities are including camping experiences as part of the child's therapy to enhance self-confidence, cooperative behavior, and feelings of self-worth. Survival camping, Outward Bound, and more traditional residential and day camps are in use.

- Residential Care--residential treatment facilities and custodial care institutions are still alternatives that parents may choose for their disturbed children. Although the current emphasis is on mainstreaming and deinstitutionalization, approximately 100,000 emotionally disturbed children were in institutions in 1970. (5, p. 268)

Children who are identified as emotionally disturbed and treated early have a good prognosis for recovery. The earlier these children are treated, the better are their chances for successfully catching up and keeping up with peers academically, physically, emotionally, behaviorally, and motorically, thus preventing more serious disturbances in adolescence and adulthood.

General Sources on Emotional Disturbance

1. Axline, Virginia M. Dibs: In Search of Self; Personality Development in Play Therapy. Boston, Massachusetts: Houghton Mifflin Company, 1964. 186 pp.

2. Bettelheim, Bruno. Love is Not Enough: The Treatment of Emotionally Disturbed Children. New York: Free Press, 1950. 386 pp.

3. Clark, Matt. Troubled children: the quest for help. Newsweek, 52-56,58, April 8, 1974.

4. Faas, Larry A., compiler and editor. The Emotionally Disturbed Child: A Book of Readings, 2nd printing. Springfield, Illinois: Charles C. Thomas, 1975. 400 pp.

5. Joint Commission on Mental Health of Children. Crisis in Child Mental Health: Challenge for the 1970's. New York: Harper and Row, 1970.

6. Morse, William C. Concepts related to diagnosis of emotional impairment. State of the Art: Diagnosis and Treatment, Kay F. Kramer, editor. Lexington, Kentucky: Coordinating Office of Regional Resource Centers (University of Kentucky, Bradley Hall, 40506), 1974, pp. 113-170.

7. Questions and answers about emotionally disturbed children. Detroit, Michigan: Michigan Association for Emotionally Disturbed Children (668 Pallister, 48202). Free.

8. Redl, Fritz. When We Deal With Children: Selected Writings. New York: Free Press, 1966. 511 pp.

9. Reisman, John M. Principles of Psychotherapy with Children. New York: John Wiley and Sons, Inc., 1973.

10. Rhodes, W. C., and M. L. Tracy. A Study of Child Variance, volume I. Ann Arbor, Michigan: University of Michigan, Institute for the Study of Mental Retardation and Related Disabilities, 1972.

11. Tucker, James A. Meeting the needs of the emotionally disturbed. State of the Art: Diagnosis and Treatment, Kay F. Kramer, editor. Lexington, Kentucky: Coordinating Office of Regional Resource Centers (University of Kentucky, Bradley Hall, 40506), 1974, pp. 171-194.

12. U. S. Office of Education. Number of Pupils with Handicaps in Local Public Schools: Spring, 1970. Washington, D. C.: U. S. Office of Education, Department of Health, Education, and Welfare, 1970.

13. Weber, George H., and Bernard J. Haberlein. Residential Treatment of Emotionally Disturbed Children. New York: Behavioral Publications, 1972. 327 pp.

GENERAL SUGGESTIONS FOR WORKING WITH EMOTIONALLY DISTURBED CHILDREN

Whether the program is in physical education, recreation, or another discipline entirely, there are several techniques and approaches that will benefit both child and leader. Note that these are general suggestions applicable to situations involving <u>all</u> children, not just those who are emotionally disturbed.

- Know the game or activity thoroughly.
- Be <u>sure</u> of the rules; do not change them during the game.
- Assemble materials beforehand to prevent unnecessary delay in starting activity.
- Announce the name of game/activity before starting.
- Participate as a model and motivator.
- Play games all can play.
- Insist that children help put away equipment and materials.
- Provide opportunities for student leadership.

More specific suggestions for program planning and leadership of emotionally disturbed children are presented in chart form on the following page.

CHARACTERISTICS OF CHILD	PROGRAM-PLANNING CONSIDERATIONS	LEADERSHIP CONSIDERATIONS
1. Learning difficulties, including short attention span.	1. Include activities that can be explained by demonstration or in simple terms; do not include activities that keep children passively waiting their turn.	1. Demonstrate and keep verbal instructions short and to the point; do not delay starting each activity; repeat instructions, demonstrations, and activities to assure understanding.
2. Hyperactivity.	2. Conduct program in a large but confined area free from hazards; plan for a variety of vigorous and quiet activities.	2. Begin with an activity that is vigorous and end with a quiet activity; watch closely for safety reasons; the entire program and presentation should be structured.
3. Passivity.	3. Conduct program in a medium to small sized area so that children are not overwhelmed by space.	3. Be enthusiastic in leading and participating; provide for each student to lead the class at some time; keep program moving.
4. Inappropriate emotional responses.	4. Structure program so children will know what they are supposed to do and where they are supposed to be.	4. Do not reinforce inappropriate behavior by giving child undue attention; participate in all activities as a model for children; be consistent in treatment of children and in presenting program.
5. Difficulty with interpersonal relationships.	5. Schedule both team games and individual activities that require sharing and cooperation.	5. Leaders should work with same children each time; use a gradual approach in introducing children to team/cooperative activities; give plenty of individual practice time before group participation.

CHARACTERISTICS OF CHILD	PROGRAM-PLANNING CONSIDERATIONS	LEADERSHIP CONSIDERATIONS
6. Perceptual-motor difficulties.	6. Include initial assessment of abilities of each child and periodic re-evaluation as part of program; include a variety of perceptual-motor activities in the program; plan for progressive activities.	6. Develop individualized program for each child based on strengths and weakness; be prepared to teach parts of an activity before the child will master whole activity.

PHYSICAL EDUCATION/PHYSICAL ACTIVITIES/PERCEPTUAL-MOTOR EXPERIENCES FOR EMOTIONALLY DISTURBED CHILDREN

Emotionally disturbed children are not generally physically retarded, and physical education programs for them would, therefore, not differ from regular programs in regard to activities for physical development. Physical education, physical activities, and perceptual-motor programs for emotionally disturbed children usually list as their goals (1) enhancement of peer status, recognition, (2) control of emotions and impulses, (3) promotion of sharing, cooperative behavior, and socialization, and (4) identification and remediation of perceptual and motor difficulties. One further goal that has become increasingly important is to provide the child with carry-over experiences to help him/her make more satisfactory use of leisure time.

Class activities for emotionally disturbed children are really quite similar to activities for non-impaired children--swimming, trampoline, games, gymnastics, conditioning. Teaching techniques, as indicated in the previous section, may be altered slightly. A method being used by many physical educators and movement specialists who are concerned about creating a more individualized program are classroom or playground stations. A station may be a mat, an apparatus, a hula hoop, or a taped-off area. Each station has the child involved in a different activity (knee drop on the trampoline; skipping rope; tossing ball into a can) which not only helps correct specific perceptual motor deficits, but also gives the child a definite goal and allows release of tension and energy within a defined boundary.

The most important aspect of physical education for emotionally disturbed children, no matter what the class format or activities used, is success. Success is what motivates students to come to the next program, to try a new activity, to go on for higher achievements. Without success, the physical education or movement program is a waste of time for leader and child. The importance of this factor cannot be over-emphasized.

The number of printed materials listed at the end of this section indicates that interest and research in physical education, physical activities, and perceptual-motor experiences for emotionally disturbed children are not lacking. This literature leads one to conclude that emotionally disturbed children do have certain perceptual-motor impairments (2,21,23,25,26), and these impairments can be improved through participation in physical activity programs. Studies have found improvements in body image (2), emotional growth (4), behavior (6,7,9,13,14), coordination (8,9,14), physical fitness (8,10,14), self confidence (9), socialization (9,10), and academics (25). Programs described in the literature have included such activities as basketball (7), trampoline (2), movement exploration (2,9,11,13,16, 19), sports skills (2,11,16,19), swimming (3,6,10,19,20), fitness (8,11,12,14,16,19), and judo (22,27).

The literature is not confined to activities and the improvements they yield. Four sources explore the general values of physical education (3,11,15,21); four studies research the influences of activity on motor performance and learning (1,18,20,24); and one article is about leader training in physical education for emotionally disturbed children (17).

Research Needs

While the literature listed here represents a good effort at researching this whole area, there is always a need for further study to determine:

- What are the most successful teaching methods in physical education for emotionally disturbed children.
- How have emotionally disturbed children been successfully integrated into regular physical education classes.
- What competencies are needed by physical education teachers of emotionally disturbed children; survey colleges and universities to determine if needed skills are being taught.
- Are acquisition of physical and motor skills related to academic gains in disturbed children.
- Is there an optimal teaching environment for the hyperactive child; the aggressive child; the withdrawn child.
- What are the sports interests of emotionally disturbed children, in terms of participation.
- How are physical education classes in public schools providing disturbed children with lifetime leisure skills.

Bibliography on Physical Education/Physical Activities/Perceptual-Motor Experiences for Emotionally Disturbed Children

+1. Auxter, David. Operant conditioning of motor skills for the emotionally disturbed. American Corrective Therapy Journal, 23(1): 28-31, January-February 1969.

Operant conditioning principles were applied to ten emotionally disturbed boys in a physical education class conducted at Slippery Rock State College. This program resulted in higher levels of functioning and faster learning rates in motor skill development than subsequent programs for these children.

+2. Auxter, David M., Edward Zahar, and Lindo Ferrini. Body image development of emotionally disturbed children. American Corrective Therapy Journal, 21(5): 154-155, September-October 1967.

Emotionally disturbed children often have impaired body image. This study investigated the effects of physical activity designed to develop motor skills and enhance proprioceptive input on the growth of body image of 12 school-age disturbed children from the Children's Study Home (Springfield, Mass.). A daily training program consisted of trampoline, movement exploration, running, jumping, and throwing. Draw-A-Man tests given before and after training showed that the experimental group made significant gains in development of body image.

+3. Edson, Thomas. Physical education: a substitute for hyperactivity and violence. Journal of Health, Physical Education, and Recreation, 40(7): 79-81, September 1969.

The values of physical education for emotionally and neurologically handicapped children are discussed. Author suggests using stations and activity progressions for teaching. Various games and activities that have proved successful in physical education for these children are outlined.

4. Fadely, Jack L., and Janet McAuley. Physical activity and its relevance to the emotionally disturbed child. Indianapolis, Indiana: Indianapolis Public Schools, Training and Resource Center, Department of Special Education, 1966. (Also see Physical activity--its relevance to the emotionally handicapped child. The Physical Educator, 23(4): 181, December 1966.)

A pilot program in physical education for eight to eleven year old emotionally disturbed boys in regular public school is described. Most of the boys, while normal in physical development, lacked basic physical skill development. The children reacted positively to traditional physical education activities, if instructions and rules were simple and flexibility was allowed. Investigators noted a dramatic interrelationship between physical and emotional growth and suggest further studies of the effect of physical activity on learning efficiency.

5. Fait, Hollis F., editor. Curriculum guide for teaching physical education to the profoundly and severely retarded. Mansfield, Connecticut: Mansfield Training School, 1969. 18 pp.

Although primarily intended for use with profoundly and severely mentally retarded children, this curriculum guide also has a section on activities for hyperactive and emotionally disturbed participants.

6. Fengler, Jorg, Hans Dietrich Loewer, and Georg von Schrader. Effect of motor exercises on a group of children with behavioral disorders. Praxis der Kinderpsychologie und Kinderpsychiatrie, 20(8): 291-294, 1971.

Six maladjusted boys (CA = 8 to 11 years) were taught to swim in the hope that success in athletics would extend to other behavioral areas. Results of tests administered before and after the six week training period indicated that further experimentation was warranted.

7. Green, Marjorie L. The effect of competitive basketball experiences upon selected personal and social behavior patterns of girls in the Gainesville State Training School. Master's thesis. Denton, Texas: North Texas State University, 1969. 87 pp.

Different forms of the California Test of Personality, Secondary Series, were administered to 50 girls, ages 14 to 18, in the State Training School (Gainesville, Texas) before and after participation in the study. One group participated in competitive basketball, one group took part in choir, and a third group had no extramural activity. Scores of the basketball group were superior to both the choir group and control group in seven factors. During the season the basketball group received fewer Behavior Reports than the others. Sociometric ratings indicates that the basketball group contained girls who averaged a higher social status than either of the other groups.

8. Green, Paul A., et al. The comparative motor and affective benefits of three physical education programming techniques used with emotionally impaired children. Paper presented at the Annual Meeting of the American Educational Research Association (Chicago, Illinois, April 1974). Blue Bell, Pennsylvania: Montgomery County Intermediate Unit 23 (Barton B. Proger), 1974. 12 pp.

Emotionally disturbed boys (N = 96; CA = 8 to 14 years) diagnosed as aggressive, hyperactive, or withdrawn were randomly assigned to four groups in a summer camp setting: (1) control, (2) treatment of physical fitness, (3) treatment of general coordination, and (4) treatment of specific coordination problems. Pretest and posttest data were collected in the areas of strength, endurance, and coordination and in 15 affective areas. Results indicated that treatment of specific coordination problems yielded superior performance in strength, endurance, and coordination; however, little change in affective areas was noted in any of the four groups.

9. Haley, Betty B. The effects of individualized movement programs upon emotionally disturbed children. Doctoral dissertation. Baton Rouge, Louisiana: Louisiana State University, 1969. 201 pp.

The case study method was used to determine whether emotionally disturbed children (CA = 7 to 15 years) would benefit from individualized movement programs with regard to motor development and improved psychosocial behavior. Data were gathered from daily observations; pre and posttest evaluations by social workers, psychiatrists, and teachers; parental questionnaires; interviews; and pre and posttests of motor development and psychosocial behavior. All children improved to varying degrees in motor skills. Self-confidence and improved group adjustment seemed to be facilitated by achievement in motor skills. It was noted that planned activities brought about a release of energy, whereas aimless activity appeared to promote hyperactivity. Conclusions indicate that individualized programs should precede group programs.

10. Hausman, R. M. Swimming for emotionally handicapped children. Honolulu, Hawaii: University of Hawaii, Special Education Department, n.d.

Purposes of this study were to determine if a well-planned swimming program could benefit seriously disturbed, institutionalized children in terms of improved socialization and physical development. The study also sought to investigate modifications needed in the approach to teaching. Results supported the concept that such a program can be beneficial to emotionally handicapped, institutionalized children.

+11. Hilsendager, Donald R., Harold K. Jack, and Lester Mann. The Buttonwood Farms project. Journal of Health, Physical Education, and Recreation, 39(3): 46-50, March 1968.

Activity essential to emotionally disturbed children must include fitness, agility, vitality, change of pace, physical achievement, and self-realization. The physical activity program at Buttonwood Farms includes these essential ingredients through fundamental movement, physical conditioning, sports skills, and physical recreation. An obstacle course is described in detail.

@+12. Jack, Harold K., and Leon E. Johnson, editors. Physical Activities for Mentally and Emotionally Handicapped Children. (Produced by a seminar in Physical Education for Mentally and Emotionally Handicapped Children.) Philadelphia, Pennsylvania: Temple University, 1971. 60 pp. (Cost $5.25 from IRUC.)

Activities emphasizing the development of motor skills, physical conditioning, and body movement are included in this manual. The manual is intended for use by physical educators and recreators conducting programs for mentally and emotionally handicapped children.

13. Jansma, Paul. Behavior modification principles applied to male adolescents by a physical educator in a mental hospital. Doctoral dissertation. Madison, Wisconsin: University of Wisconsin, 1972. 196 pp. (Available from Xerox University Microfilms, Dissertation Copies, P. O. Box 1764, Ann Arbor, Michigan, 48106; order number 72-23, 315.)

The purpose of this study was to determine whether a physical educator in a physical recreation setting could alter certain inappropriate behavior via operant conditioning techniques, with physical activity as the reinforcement. Six adolescent males from Mendota State Hospital participated, and the behaviors focused on were tic, excessive questioning, and four withdrawal behaviors involving lack of participation in specified physical activities. Comparisons of behavior before and after the physical recreation program showed significant differences, supporting the investigator's initial hypothesis.

*14. Mann, Lester, et al. A Comparison of Three Methods of Physical Education Programming for Emotionally Disturbed Children. Final Report, 1973. 320 pp. (ED 083 776, $13.16 paper copy; $0.65 microfiche.)

Four groups (CA = 6 to 14 years), each with eight aggressive, eight hyperactive, and eight withdrawn children were assigned to four treatments in a summer camp: control, physical fitness, general coordination, and specific coordination. Tests in motor and affective areas were administered before and after camp for two summers. The specific coordination group exhibited superior performance in strength, Bender developmental age scores, and Devereux measure. The general coordination group excelled in least impatience and equalled the specific coordination group in coordination. Conclusions indicated that restructuring physical activities for emotionally disturbed children enhanced motor behavior but had little effect on emotional adjustment or academic aptitude.

+15. Mann, Lester, and Donald W. Hilsendager. Physical recreation--an old-new dimension in helping the emotionally disturbed child. American Corrective Therapy Association Journal, 22(4): 131-133, July/August 1968.

Traditional medical models of treatment have not provided the emotionally disturbed child with sufficient resources to cope with daily living. Physical education has increasingly been recognized as a contributor to sensori-motor development, socialization skills, and general outlook of emotionally disturbed children. Buttonwood Farms camping and recreational programs are described.

+16. Mann, Lester, and Donald W. Hilsendager. The four phases: a new conceptual approach to physical education for emotionally disturbed children. American Corrective Therapy Association Journal, 22(2): 43-45, March/April 1968.

The Four Phases program for emotionally disturbed children includes (1) physical conditioning, (2) fundamental movement correction and training, (3) basic sports skills development, and (4) physical recreation activity training. This differentiated and structured approach offers opportunity for development on all levels.

17. Mann, Lester, Thomas S. Wright, Donald R. Hilsendager, and Harold K. Jack. A pilot training program to develop physical recreation leaders for work with emotionally disturbed children. Community Mental Health Journal, 3(2): 159-162, 1967.

Physical education graduate students were trained in a pioneer program to assume leadership roles in recreation work with emotionally disturbed children. The year-round program exposes trainees to a variety of experimental opportunities in both day camping and community recreation settings. Temple University provides a 6-credit curriculum, while the field training is supervised by Buttonwood Farms (Philadelphia, Pennsylvania).

18. McMillan, Eldon. A comparison of the motor skill learning abilities of normal and emotionally disturbed children. Master's thesis. University of Western Ontario (London, Ontario), 1970.

@19. Moran, Joan May, and Leonard Harris Kalakian. Movement Experiences for the Mentally Retarded or Emotionally Disturbed Child. Minneapolis, Minnesota: Burgess Publishing Co., 1974. 387 pp.

Mentally retarded and emotionally disturbed children may improve physical, social, and emotional development through movement experiences. This book provides background information and specific activities for physical fitness, play therapy, motor skills, movement education, music and dance, perceptual-motor development, aquatics, and gymnastics.

20. Neufeld, Marilyn M., and Richard W. Neufeld. Use of video-tape feedback in swimming instruction with emotionally disturbed children. Perceptual and Motor Skills, 35(3): 992, December 1972.

+21. Poindexter, Hally B. W. Motor development and performance of emotionally disturbed children. Journal of Health, Physical Education, and Recreation, 40(6): 69-71, June 1969.

Research has suggested that normal perceptual-motor development is related to social adjustment, mental development, and

emotional development. Author discusses motor ability of emotionally disturbed youngsters, as reported in experimental and empirical studies.

22. Portuondo, J. M., and J. Landry. Judo as an activity for disturbed children in a state hospital. Hospital and Community Psychiatry, 25: 651, October 1974.

+23. Rider, Barbara A. Perceptual-motor dysfunction in emotionally disturbed children. American Journal of Occupational Therapy, 27(6): 316-320, September 1973.

The Purdue Perceptual-Motor Survey, Southern California Sensory Integration Tests, and Reflex Testing for Evaluating Central Nervous System Developmental Scale were administered to 20 emotionally disturbed children (CA = 6-12 years). All mean scores of emotionally disturbed children were lower than mean scores of normal children. Emotionally disturbed children also showed more abnormal reflex responses. Results suggest a sensory-integrative component of the behaviors labeled disturbed in children.

24. Robarge, Arthur J. The effects of social reinforcement and competition on the motor performance of emotionally disturbed and normal children. Doctoral dissertation. Storrs, Connecticut: University of Connecticut, 1970.

*25. Rubin, Eli Z., et al. An Investigation of an Evaluation Method and Retraining Procedures for Emotionally Handicapped Children with Cognitive-Motor Deficits. Final Report, 1968. 159 pp. (ED 024 204, $6.58 papercopy; $0.65 microfiche.)

A battery of tests to measure cognitive, perceptual, and motor (CPM) deficits was administered to 200 behaviorally maladjusted and 200 problem-free children. None of the problem-free group exhibited major dysfunction, whereas 40% of the behaviorally maladjusted children did. Of this 40%, 58 children were assigned to three groups: CPM training, remedial academic work, and control group. A test-retest of academic achievement and behavioral adjustment was administered. Results indicated that CPM training was most valuable to children who had developed few academic skills. Programs combining CPM training and academic instruction were required for children of second grade and above.

+26. Shoemaker, Fred, and Henry K. Kaplan. Observation on physical fitness and development skills of emotionally disturbed boys. Therapeutic Recreation Journal, 6(1): 28-30, 35, 1972.

Administered physical fitness tests to 12 to 16 year old emotionally disturbed boys in an effort to determine fitness norms for this population. Performance of these boys consistently fell below performance of normal and educable mentally retarded boys.

+27. Therapy in the gym. Time, February 15, 1971.

Describes the physical activities program at the Academy of Physical and Social Development (Newton Centre, Massachusetts). Insecure children and adults with a variety of physical or emotional disorders are enccuraged to participate in boxing, judo, karate, hockey, football, wrestling, and other activities.

+28. Webb, Wellington. Physical education classes for the emotionally disturbed child. Journal of Health, Physical Education, and Recreation, 43(5): 79-81, May 1972.

Physical education classes for emotionally disturbed children should emphasize the same goals as classes for normal children: socialization, development of coordination and skilled movement, and the positive redirection of energy. The most difficult adjustment to make in teaching physical education to emotionally disturbed youngsters is the need for awareness of differing pathologies of each child and the coping techniques that will enforce specific treatment goals.

ADDENDUM

+29. Brown, B.J. The influence of a physical education program on the basic motor fitness of emotionally disturbed children. American Corrective Therapy Journal, 30(1): 15-20, January-February 1976.

An experimental group of emotionally disturbed boys and girls (N=19; CA=6-7 years) participated in a daily, structured physical education program for five weeks. A control group had no program. Results indicated that experimental group improved significantly in motor fitness as a result of the structured physical education program.

RECREATION AND EMOTIONALLY DISTURBED CHILDREN

Values of recreation to emotionally disturbed children include: (1) enjoyment, (2) opportunity for self-expression, (3) enhancement of perceptual and motor abilities, (4) chance to try out new behaviors in relaxed atmosphere, and (5) possible use as therapeutic agent.

Recreation as therapy (therapeutic recreation) differs only slightly from recreation, but that difference is extremely important. Yes, all recreation has therapeutic (beneficial, remedial) properties, or so we like to think, but the term therapeutic recreation implies a purposeful (not accidental) intervention to affect a specified change in the individual. Many psychiatric treatment centers have used therapeutic recreation, or at least recreation activities, for years as a part of their treatment programs.

Unfortunately, recreation literature does not reflect the fact that recreation has a relatively long history of use with emotionally disturbed children. Most of the printed materials listed at the end of this section deal with recreation/therapeutic recreation purely in terms of values and programing methods (2,3,5,7,8,15,18,19,20,22, 23); only one of these is a study that attempted to research the values of therapeutic recreation for disturbed children (22). Other literature covers recreation/therapeutic recreation in settings other than residential facilities: in a school (4), a hospital (6), a community (9,10), and a summer program (14).

The literature has definitely shown that emotionally disturbed children are capable of participating in recreation activities and in a variety of settings. Activities that have been used in recreation for disturbed children are large and small group games, arts and crafts, outdoor education, clubs, drama, music, and hobbies. A more unique activity that has been included in this section only for lack of a more appropriate section is keeping a pet, described in one article (13).

Leisure education and leisure counseling are currently gaining in importance in the field of recreation. Both are based on the premise that some persons must literally be taught to use their leisure time and that some persons require specialized counseling to determine their interests and break patterns of leisure mis-use. Two sources in this compilation of literature deal with leisure education and counseling (1,11).

Possibly because research is lacking in more basic areas of recreation for emotionally disturbed children (i.e., the values of recreation in treatment), recreation as a diagnostic tool has been only sparsely researched (16,21). If, as some recreation researchers suggest, emotionally and mentally ill individuals have problems with their leisure, perhaps these leisure patterns could be identified and serve as indicators of emotional and mental illness.

Research Needs

Much more research in the area of recreation for emotionally disturbed children is needed. The literature listed in the bibliography concluding this section indicates that initial efforts have been made, but many more controlled studies are required to firmly establish the benefits of recreation for emotionally disturbed children. The following are a few areas of needed research:

- In what ways does therapeutic recreation contribute to the emotionally disturbed child's development.
- How have municipal recreation departments integrated disturbed children into regular programs; what techniques and methods were particularly successful.
- What are the recreation interests of emotionally disturbed children; are there any discernible leisure patterns.
- Compare the success of several leisure counseling methods; what are the long-term effects of leisure counseling on the disturbed child's interests and participation patterns.
- What is the reliability of recreation as a tool in identifying emotionally disturbed children.
- Survey colleges and universities that offer courses in recreation for emotionally disturbed children; compare course offerings with competencies identified by persons in the field as necessary for working with disturbed children.
- How have recreation activities proved effective in helping disturbed children acquire academic skills.

Bibliography on Recreation for Emotionally Disturbed Children

1. Adams, Jeanne Loretta. A program of social growth through leisure education for emotionally ill adults. Master's thesis. University of Illinois, 1971.

2. Baker, Charles. Therapeutic recreation for exceptional children. Journal of Rehabilitation, 37(1): 32-34, 1971.

   The three major values of recreation as a therapeutic tool in treating emotionally disturbed children are discussed. They are (1) that recreation offers child the chance to express self-satisfaction, (2) that recreation has therapeutic properties, and (3) that recreation offers professional the chance to observe child at play. A case study is cited.

3. Buis, Jon. A method for recreational therapy with emotionally disturbed children. Recreation for the Ill and Handicapped, 11(1): 7-10, 12, 14-16, 18-20, 1967.

   A method for initiating, expanding, and concluding a recreation program for emotionally disturbed children in a psychiatric setting is described. The method is built on a theory of self-sufficiency and individual freedom under the domain of recreational therapy.

4. Buttimore, John. A total program for helping emotionally disturbed children. Canada's Mental Health, 21(2): 17-23, March-April 1973.

   Dellcrest School offers interdisciplinary treatment to emotionally disturbed children in an educational setting. In addition to academic and personal skills, a day's program includes large and small game activities, arts and crafts, and outdoor education. After one year, children are integrated back into their community schools.

5. Duffin, Daryl. A therapeutic recreation program for emotionally disturbed children. Master's thesis. Salt Lake City, Utah: University of Utah, 1968.

6. Durrant, R. W., and D. Evans. A youth club within a psychiatric hospital. Nursing Mirror, 123: 1-3, 1967.

   A youth club within a hospital integrating disturbed and normal teenage patients is described. Article discusses the club's purposes, activities, administration, and values.

7. Evans, Kenneth E. The recreation teacher as a special educator. Devereux Schools Forum, 4(2): 66-72, 1968.

Participation in a recreation program can enhance social and emotional growth or result in the emotionally disturbed or mentally retarded child's withdrawal. The recreation teacher's skill has a great deal to do with the final outcome.

+8. Glavin, John, and Peter A. Witt. Recreation for the conduct disorder child. Exceptional Children, 35(10): 787-791, Summer 1969.

Various successes and failures of a one-year sociorecreation program for conduct disorder boys are described. Traditional models of free play and socially centered programing were a failure. A structured setting, including basic motor and game skills and drama and music, was more successful in helping participants develop physical and social skills and rechannel deviant behavior.

9. Goldberg, I. Operation TREATS: A Short Term Demonstration Project for Severely Deprived Children. New York: U. S. Office of Economic Opportunity, Community Development Agency, 1967.

This short term project provided a group of 7 to 14 year old severely deprived, emotionally disturbed children with recreation, education, and cultural activities. A group of normal children was also included. Remedial reading, art therapy, games, and counseling were offered.

10. Hayes, Gene A., and D. Smith. Municipal recreation services for special populations in Texas. Therapeutic Recreation Journal, 7(1): 23-30, 1973.

Reports a feasibility study conducted in Texas to determine how many park and recreation departments provided services to special populations, including emotionally disturbed persons.

+11. Hitzhusen, Gerald. Youth recreation counseling: a necessity in therapeutic recreation. Therapeutic Recreation Journal, 6(2): 79-82, 96, 1972.

A high correlation is indicated between emotional disturbance in youth and poor parent/youth relationships. One particular area of poor parent/youth relationships is recreation and leisure patterns. Suggests leisure counseling and presents two case studies.

12. Kulla, Michael. A therapeutic doll play program with an emotionally disturbed child. Doctoral dissertation. Norman, Oklahoma: University of Oklahoma, 1966. 101 pp.

Over a period of two years, 29 doll play sessions of varying length were observed under controlled and experimental conditions.

13. Levinson, Boris M. Pets, child development, and mental illness. Journal of the American Veterinary Medical Association, 157(11): 1759-1766, 1970.

Pets may play a major role in a child's emotional development and prevent mental illness, especially in homes where affection and emotional security are lacking. Dogs in particular may satisfy the child's need for physical contact without the fear of undesirable emotional involvement that may accompany contact with human beings.

+14. Marshall, Patricia A. A coordinated summer program of therapeutic recreation and academic instruction for emotionally disturbed children. Therapeutic Recreation Journal, 3(4): 1, 46-47, 1969.

Severely emotionally disturbed children participated in an eight-week program of motor, academic, and game skills coordinated by a special educator and recreation therapist. In general, greatest gains were made by children with highest IQ's. All children made measurable gains in physical and motor skills.

+15. Robb, Gary M. A new dimension in treatment: therapeutic recreation for the emotionally disturbed child. Therapeutic Recreation Journal, 4(1): 13-14, 44, 1970.

The therapeutic recreator's role at the Children's Psychiatric Center (Salt Lake City, Utah) is described. Recreation activities are a form of treatment.

16. Rocha, Z., Carniero da Cunha, M. Viara, and M. O. Barros. Sobre a utilizacao do jogo dirigido no diagnostico dos disturbios emocionais da crianca (The utilization of oriented games in diagnosing and treatment of children's emotional disturbances.) Neurobiologia, 33(3): 179-184, 1970.

The value of oriented games in diagnosis and as therapy with emotionally disturbed children is discussed.

17. Schiffer, Mortimer. The Therapeutic Play Group. New York: Grune & Stratton, 1969.

Presents techniques of group play therapy with emotionally disturbed elementary school children. A detailed account of one group of five boys over a three-year period is given.

+18. Shapiro, Ira G. A rationale for the use of limits in recreation programming for emotionally disturbed children. Therapeutic Recreation Journal, 6(4): 158-159, 1972.

Limits have many functions in recreation programing for emotionally disturbed children, among which is allowing release

of aggression through symbolic means, enabling the leader to maintain attitudes of acceptance while discouraging physical attacks, and assuring the physical safety of all.

19. Sharma, Rama Shankar. Group exposure versus individual help in recreational therapy. Therapeutic Recreation Journal, 1(1): 20-25, 34, 1967.

Recreation therapy is an area within the emotionally disturbed child's total treatment program in which he can feel more relaxed and derive enjoyment. Group and individual approaches to recreation for emotionally disturbed children are contrasted, and guidelines are offered for individual treatment.

20. Stracke, Dick. Hobbies. Recreation in Treatment Centers, 5: 37-39, 1966.

The goals of a hobby program for persons in the process of emotional rehabilitation include revival of past interests and stimulation of new interests. The reasons for having a hobby, as well as different hobbies to choose, are discussed.

21. Tallman, Sally P. The use of activities in understanding behavior of the emotionally disturbed male adolescent. Master's thesis. University of Wisconsin, 1967.

The purpose of this study was to determine whether a structured activity program, especially observations made by the recreation therapist, could contribute to diagnostic evaluation of the emotionally disturbed male adolescent. Four adolescents, each observed over a six-week period in 84 activities, participated in the study.

22. Tunnicliffe, J. Fred. An analysis of the influence of recreational therapy on male youths ages 14-21 who are afflicted with personality trait and pattern disturbances. Master's thesis. University of California at Santa Barbara, 1965. 173 pp.

This study was carried out in cooperation with the California branch of the Devereux Schools. In general, participation in recreation was found to positively assist participants in their rehabilitation.

+23. Wertman, Manny, and Alfred Jaretzski IV. Recreation therapy in a children's residential psychiatric service. Therapeutic Recreation Journal, 6(4): 172-177, 1972.

A program of physical activities for nine to twelve year old disturbed children was restructured to include team games and organized play. A trophy and penalty system encouraged cooperative behavior and discouraged anti-social behavior. Children's behavior in this program contrasted favorably with previous behavior.

+24. Degutis, Ernest W., and Harold K. Jack. Physical education-recreation methodology. Journal of Health, Physical Education, and Recreation, 41(5): 69-70, May 1970.

Methods of instructing emotionally disturbed children and organizing classes for them are discussed in this article. Controlling the learning (or physical education/recreation) experience through the methods described is a contributor to changing undesirable behavior.

+25. Waggoner, Bernice E. Motivation in physical education and recreation for emotionally handicapped children. Journal of Health, Physical Education, and Recreation, 44(3): 73-76, March 1973.

General concepts of motivation are presented, with reference to Fait, Singer, and Cratty. These concepts are applied to motivating emotionally disturbed children for physical education and recreation experiences. Teaching suggestions are given.

ADDENDUM

+26. Fleck, Thomas Jr. Eliminating the "extra" from extracurricular activities for SED students. PRISE Reporter, (7): 1, January 1976.

Questions how many socially-emotionally disturbed (SED) students participate in extracurricular activities. These activities have much to offer as enhancers of academic skills and self confidence.

ART, MUSIC, DRAMA, AND DANCE FOR EMOTIONALLY DISTURBED CHILDREN

These four disciplines--art, music, drama, and dance--are all used in programing for emotionally disturbed children, in both an activity and a therapeutic sense. Most recreation programs include at least one of the four, physical educators often use music and rhythmic activities, and psychiatric treatment facilities are sure to offer art, music, drama, and/or dance therapy.

Art

Through art emotionally disturbed children have been aided in channeling aggression into constructive behavior, improving self-expression, and developing creative and divergent thinking. In addition drawings by disturbed children are sometimes interpreted, and the art experience is used as therapy to assist children in expressing and working out conflicts. Six sources on art (1,4,10,26) and art therapy (13,14) are included in the bibliography at the end of this section. These sources represent both research and program descriptions and techniques.

Music

Music experiences have proved effective in lowering hyperactivity, improving self-concept, decreasing stress, and establishing communication with the disturbed child. As part of the child's psychiatric treatment program, music therapy assists the child in behavioral, communication, socialization, and academic areas. The eleven listings on music therapy in the bibliography concluding this section are representative of music activities (3,19,20,23) and music therapy (5,7,8,17,18,25,27) for emotionally disturbed children. Research studies in this area are few in number, but tested models for programs in music/music therapy are beginning to appear.

Drama

Creative dramatics and, more recently, drama as therapy have proved to be effective and enjoyable additions to the emotionally disturbed child's treatment, recreation, and/or academic program. Studies have found drama to be effective in enhancing emotional control, self-confidence, socialization, self-expression, and creative and divergent thinking of emotionally disturbed children. Many children have also shown lessened anxiety and less fear of failure after participating in dramatics experiences. Sources in the bibliography concluding this section are about drama as therapy (12, 28,29), dramatics activities (6,9,10,11,15,21,22), and research in the area of dramatics for emotionally disturbed children (6,10,15).

Dance

Dance is yet another tool being used in schools, treatment centers, and recreation programs for emotionally disturbed children. Dance therapy research suggests that this discipline contributes to desirable personality changes, positive self-image, increased understanding of the body, and communication abilities of emotionally disturbed children. While most dance therapists work in psychiatric treatment facilities with older mentally ill persons, this field is receiving increased attention from special educators and therapists who work with children. Two sources on dance therapy (2,24) may be found in the bibliography at the end of this section.

Research Needs

Although a very high proportion of the literature reviewed here consists of research studies, there is always a need for further investigation and questioning. The following are seen as particularly pertinent research needs:

- In what specific ways have art, music, drama, or dance programs complemented academic programs; can any academic gains of emotionally disturbed children be attributed to their participation in art, music, drama, or dance programs.
- Compare effects of art, music, drama, or dance as therapy with their effects as activities in a recreation program, on selected aspects of the emotionally disturbed child's behavior.
- Does a model for an art, music, drama, or dance program for emotionally disturbed children exist; can a model be developed.
- Determine materials and techniques that will contribute to the success of a art, music, drama, or dance therapy program.
- Survey colleges and universities offering programs in these therapies; compare course offerings to competencies identified by therapists as necessary for working with emotionally disturbed children.
- What opportunities do art, music, drama, and dance offer for integrated experiences; what activities are particularly successful in integrated groups.

Bibliography on Art, Music, Drama, and Dance for Emotionally Disturbed Children

1. Alkema, Chester Jay. Art for the Exceptional. Boulder, Colorado: Pruett Publishing Co., 1971. 100 pp.

   Includes chapters on art for physically disabled, emotionally disturbed, delinquent, hearing impaired, gifted, mentally retarded, and blind children and youth.

2. Balkus, Mary P. An experimental study of the relationship between participation in a dance therapy program and changes in selected aspects of personality of female psychiatric patients at the Terrell State Hospital in Terrell, Texas. Doctoral dissertation. Denton, Texas: Texas Women's University, 1968. 261 pp.

   An experimental group participated in a dance therapy program five days a week for ten weeks, and a control group adhered to the usual regime of Terrell State Hospital. The Minnesota Multiphasic Personality Inventory was administered before and after the program, and the investigator made observations of participants. Experimental group showed significant improvement with respect to the trait of hypochondriasis; no other significant changes in patients' personalities were revealed. A positive relationship was found between participation in a dance therapy program and desirable changes in personality, as revealed through study of disciplined observations of patients and interviews with hospital personnel.

3. Bender, Lauretta. Music project. Child Psychiatric Techniques. Springfield, Illinois: Charles C. Thomas, 1952, pp. 197-199.

   Author uses this chapter to describe the use of music with children who have emotional problems. Music was found most valuable with younger children, especially rhythmic activities. It was also an important means of training hyperactive children.

4. Bergen, Richard Dean. Art oriented work experience and its effect on hospitalized seriously emotionally disturbed adolescents. Doctoral dissertation. Lawrence, Kansas: University of Kansas, 1972. 89 pp. (Available from University Microfilms, P. O. Box 1764, Ann Arbor, Michigan, 48106. Order number 72-32844, $10.00 papercopy, $4.00 microfiche.)

   Effects of a sculpturally oriented art experience on behavior modification of emotionally disturbed adolescents was investigated. An experimental group and a control group, which did not participate in art, were compared on pre- and posttests of a standardized achievement test and observable behavior patterns. The experimental group made significant gains in all areas of the posttest and performed better than the controls in acceptable standards of classroom behavior, being tardy for class less often and more responsible about notifying personnel when tardy

or absent. Findings indicate a significant difference in the behavioral modification of emotionally disturbed adolescents involved in the experimental art group.

5. Bruce, Robert. Music therapy: how it helps the child. Journal of the International Association for Pupil Personnel Workers, 19(2): 74-79, March 1975.

Following a brief review of the role of music in the history of education, author examines the expanding application of music to child therapy. Also included are some suggestions for a broader utilization of music in the total school scene.

6. Clitheroe, T. K. The effects of free drama on the interpersonal relationships of E.S.N. children. Special Education, 54(2): 7-10, 1965.

Ten children with physical handicaps, speech impairments, behavior problems (withdrawn or aggressive), or emotional disturbance participated in creative dramatics. A sociometric test administered before and after the program revealed considerable individual change in ability to control aggression, self-confidence, and overcoming fears of failure and humiliation.

@7. Developmental Music Therapy. Athens, Georgia: Rutland Center, Technical Assistance Office (698 N. Pope Street, 30601), August 1974. 75 pp. (Available from National Association for Music Therapy, Inc., P. O. Box 610, Lawrence, Kansas, 66044. $3.00.)

Music therapy was added to the developmental therapy program at the Rutland Center as a means of directing children's progress in four curricular areas: behavior, communication, socialization, and academics. Guidelines for implementing a developmental music therapy program for severely to minimally emotionally disturbed children are given.

8. Dryer, Jerome, and James Dix. Reaching the blind child through music therapy. Journal of Emotional Education, 8(4): 202-211, 1968.

A music therapist who works with blind, brain-damaged, or emotionally disturbed children describes how he establishes contact with these children when they are withdrawn, nonverbal, or hostile.

9. Fowlkes, Nancy L. Some effects of a recreational drama program on a group of emotionally disturbed adolescents. Master's thesis. Madison, Wisconsin: University of Wisconsin, 1966. 69 pp.

Eighteen emotionally disturbed adolescents in a state hospital were observed over eight one-hour sessions in preparation for a play. Changes in each group member and in the group were rated as to appearance, motor activity, socialization, mood,

and anxiety state. Findings indicated an overall individual improvement in self-confidence and adjustment to the group.

10. Gallagher, Patricia. Procedures for developing creativity in emotionally disturbed children. Focus on Exceptional Children, 4(6): 1-9, November 1972.

Reports on and evaluates three studies which provided planned activities to encourage creativity and divergent thinking in emotionally disturbed children. The studies utilized lessons in art, creative writing, and drama. All children demonstrated improved self-expression, divergent thinking, and creative thinking after lessons.

@11. Gillies, Emily. Creative Dramatics for All Children. Washington, D. C.: Association for Childhood International, 1973. 65 pp.

Principles for developing a sequential program of creative dramatics are presented in this book. The aim of this program is to enable children to be more at ease when speaking aloud and conversing with others. The program is applied to emotionally disturbed, brain injured, and non-English speaking children.

@12. Jennings, Sue. Remedial Drama: A Handbook for Teachers and Therapists. New York: Theatre Arts Books (333 Sixth Avenue, 10014), 1973. 116 pp.

This handbook explores the values of drama as therapy for individuals with physical, psychological, or communication problems. Intended for non-drama specialists, the book is primarily devoted to practical things-to-do in a drama program.

13. Kramer, Edith. Art therapy and aggression. American Journal of Art Therapy, 10(4): 187-204, July 1971.

Art therapy for aggressive children is discussed. Presentation of four children illustrates partial transformation of raw aggression into constructive energy by the children's increasing skill, enthusiasm, and respect for art materials while producing work expressing aggression. Pictures of each child's art work are given.

14. Kramer, Edward J. The practice of art therapy with children. Art Therapy, 11(3): 89-110, 1972.

A program of art therapy in the 15-bed children's psychiatric ward of a city hospital is described and case histories are cited as examples of possible therapeutic benefits of such a program. The active role required of the therapist and the theoretical analysis of such therapy sessions are discussed.

15. Mazer, June L. Producing plays in psychiatric settings. Bulletin of Art Therapy, 5(4): 135-148, July 1966.

Completed questionnaires and reports from hospitals that have drama groups indicated that diagnosis was not as significant as current behavior in determining patients' abilities to participate. Although there was no evidence that participation in play production helped or failed to help patients, the problem of let-down after performance was agreed to be very important. It was indicated that patients benefited from realistic demands and a less protective atmosphere than had been previously thought.

16. McClaskey, Harris C. Bibliotherapy with emotionally disturbed patients: an experimental study. Doctoral dissertation. Seattle, Washington: University of Washington, 1970. 162 pp.

A planned program of bibliotherapy was offered to 73 chronic emotionally disturbed patients in two state mental hospitals. The study attempted to determine the effectiveness of bibliotherapy using didactic literature, the effectiveness of using creative literature, and the interaction of both types of bibliotherapy with hospital setting, sex, and length of institutionalization.

17. Michael, Donald E., and Dorothea Martin. Music and self-esteem research with disadvantaged problem boys in an elementary school. Journal of Music Therapy, 7: 1970.

18. Nordoff, P., and C. Robbins. Therapy in Music for Handicapped Children. New York: St. Martin's Press, 1971. 144 pp.

This book provides an introduction to music therapy with physically, mentally, and emotionally handicapped children. A series of clinic projects are presented illustrating the therapeutic role of music in establishing communication with these children.

19. Price, Ronald, et al. Out of pandemonium--music. Music Educators Journal, 58(8): 35-36, April 1972.

Briefly described is a music program for emotionally disturbed children with discipline problems. The program purports to increase musical perception, develop positive self-concept, and modify unconventional behavior. Harp and piano were the instruments used because they require manipulation, physical confinement, and gross and fine motor control.

@20. Riordan, Jennifer Talley. They Can Sing Too: Rhythm for the Deaf. Leavenworth, Kansas: Jenrich Associates, 1971. 67 pp.

Although this book was written for teachers of preschool deaf children, it has also been found useful by teachers conducting

music programs for socially maladjusted, emotionally disturbed, and mentally retarded children. Teaching suggestions and activities are given for a variety of types of rhythm/music experiences.

+21. Schisgall, Jane. The creative use of multimedia (or the shape of strings to come). Teaching Exceptional Children, 5(4): 162-169, Summer 1973.

Eight creative dramatics activities involving a variety of multimedia materials are presented. These activities have been used with emotionally and academically handicapped adolescents to encourage them to release their inhibitions and increase self knowledge. Among the activities are making shadows in the light from an overhead projector, acting out the frames of a filmstrip, watching a movie without sound, exploring shapes independently and as a group with string, looking through pieces of colored plastic, and using a 20 foot terrycloth towel as a prop in a variety of improvisations.

22. Shapiro, Marvin I. The development of communication skills project. Final report. Pittsburgh, Pennsylvania: Pittsburgh Child Guidance Center, 1965. 9 pp.

Traditional psychotherapy is not beneficial to non-communicative children, but creative dramatics could be a useful preparation for psychotherapy. A teacher experienced in creative dramatics led six children through 42 sessions. Communication skills in five children improved--they became more spontaneous, fluent, and involved with each other.

+23. Shniderman, Craig M., and Ann Volkman. Music and movement involve the whole child. Teaching Exceptional Children, 7(2): 58-60, Winter 1975.

This article discusses Camp Greentree, a therapeutic day camp for emotionally disturbed boys in Bethesda, Maryland. Music and movement experiences are provided to alleviate psychological stress placed on disturbed, aggressive children.

+24. Shuman, Bonnie. Dance therapy for the emotionally disturbed. Journal of Health, Physical Education, and Recreation, 44(7): 61-62, September 1973.

Goals and methods of dance therapy are presented. For the emotionally disturbed individual, dance therapy can contribute to positive self-image, understanding of the body, and ability to communicate.

25. Thomas, M. The challenge of music therapy. Provo Papers, 4: 12-21, 1968.

Discusses the use of music therapy in the treatment of mentally ill youths in combination with other forms of therapy. Article illustrates the successful use of music therapy in treating emotionally disturbed children.

26. Uhlin, Donald M. Art and the emotionally disturbed child. Art for Exceptional Children. Dubuque, Iowa: William C. Brown Company, 1972, pp. 94-130.

This chapter concentrates on interpreting art work of emotionally disturbed children, with some case studies presented. Symbolism implied by use of circles, crosses, and rectangles is discussed and illustrated with photographs of children's drawings.

27. Wasserman, Norma M. Music therapy for the emotionally disturbed in a private hospital. Journal of Music Therapy, 9(2): 99-104, Summer 1972.

Describes a music therapy program that was part of a total therapy/activities program for 23 psychiatric patients in a general hospital.

@28. Wethered, Audrey C. Movement and Drama in Therapy: the Therapeutic Use of Movement, Drama and Music. Boston: Plays, Inc., 1973. 128 pp.

The role of body movement, drama, and music in treatment of emotionally disturbed persons are explored by this book. Author relates her own experiences and provides a number of practical activity ideas that she has used.

29. Williamson, Neith. The therapeutic use of creative drama with children presenting behavior problems. Denver, Colorado: University of Denver, 1946.

ADDENDUM

30. Reid, D.H., B.K. Hill, R.J. Rawers, and C.A. Montegar. The use of contingent music in teaching social skills to a nonverbal, hyperactive boy. Journal of Music Therapy, 12(1): 2-18, Spring 1975.

Three experiments are described: (1)use of music in teaching appropriate walking skills, (2)feasibility of music in teaching and maintaining acceptable car-riding behavior, and (3)practicability of a remote control device for rapid presentation of contingent music.

OUTDOOR OPPORTUNITIES FOR EMOTIONALLY DISTURBED CHILDREN

Camping is the facet of recreation that has received the most attention in regard to emotionally disturbed children. For dozens of years traditional camping programs have been adapted to suit the emotionally disturbed child's need for a more controlled, residential setting with a smaller camper to staff ratio. Camps have come to be looked upon as total therapeutic environments, equalling or surpassing other residential treatment programs in their effect on the disturbed child.

The fact that camping is such a valuable experience has been attributed to several factors: (1) at camp the child has a much more intense and personal relationship with his/her therapist or counselor, (2) camps have very relaxed, vacation-like atmospheres rather than the confining, regimented atmospheres of some treatment facilities, (3) children are completely removed from stresses that are causing or aggravating their problems (a parent, home environment) for a sufficient amount of time to begin building strengths to deal with home problems, and (4) camping activities such as swimming, hiking, and games contribute to disturbed children's motor development and are possibly linked to increased self-esteem.

Wilderness/survival camping has been successful as a therapeutic tool for many of the same reasons as residential camping. This type of camping removes participants from even the roughest of accommodations and requires them to actively contribute to their own survival, from building a shelter to collecting food. Of course, there are levels of wilderness/survival camping, and campers are sometimes given a tent, a certain amount of food, and tools; in these instances campers must merely know what to do with tent, supplies, and tools to stay alive. (This example is more toward the wilderness than the survival end of the continuum!) The value of survival camping is the tremendous sense of self-esteem that participants derive from it. They can clearly see what had to be done to stay alive--and they did it!

Outdoor education activities are out-of-the-classroom experiences planned by teachers and/or students to enrich their in-class programs. Outdoor education is a technique as much as a discipline, and it consists of utilizing the outdoors for practical learning experiences. For example, instead of telling students that an acre is 4840 square yards, the teacher takes them to a field and has them mark it off; instead of reading about pollution, students visit a waste treatment plant, take samples, and look at them under a microscope. For emotionally disturbed children, outdoor education might be conducted at a school camp all year long. The value of outdoor education is that it fosters knowledge through inquiry and direct contact, a technique which does seem more successful than traditional academic approaches for emotionally disturbed children.

The printed materials listed in the bibliography at the end of this section have been divided into three parts--camping, wilderness/survival camping, and outdoor education. Most of the sources describe specific camp or outdoor education programs (1,2,3,5,11,12,14,16,17,20,24,25,26,27,33,34,35,36,37,40,41,42,43,45,47), although there are some references on camping in general for emotionally disturbed children (4,8,9,13,21,23,30,31,32). Activities used in camps include academics (5,16,25,26), counseling (5,17), general recreation (5,17), canoeing (11,12), mountaineering (40), survival training (38,39,41,42,43,44), interpersonal relation skills (5,25,26), behavior modification (25,26), and outdoor education (45,46,47,48,49,50,51).

Research in camping for disturbed children is needed to firmly establish the value of camping to them. Unfortunately, much of what has been written is based on casual observations and suppositions, rather than careful, controlled study. The bibliography following this section does include some research studies on the value of camping for emotionally disturbed children (14,15,19,22,28,29,36,38,39,41,44,47), and these studies are generally favorable. However, more research is needed to convince those in other fields that camping is an effective adjunct to the child's treatment program.

Research Needs

As indicated in the preceeding paragraphs, additional camping research is needed to fully clarify the values of camping experiences for disturbed children. Other areas needing investigation are:

- Benefits of year-round camping as compared to only summer camping.
- Values of integrated camping where appropriate role models are available through the presence of normal campers; what are comparative gains of disturbed children in regular camps and disturbed campers in special/segregated camps.
- What are competencies required of camp counselors; what training opportunities for counselors exist; can a counselor-training model be developed.
- Compare academic progress of emotionally disturbed children in traditional classrooms and in outdoor education curricula.
- Develop techniques for follow-up of campers after camp experiences; what are effects of such follow-up.

Libliography on Outdoor Opportunities for Emotionally Disturbed Children

Camping References

1. Aldrich, Gordon J., and O. S. MacDonald. An experimental camp for emotionally disturbed boys. Journal of Child Psychiatry, 2: December 3, 1952.

2. Blanchard, Earl. Programming for disabled campers. Camping Magazine, 39: 16, February 1967.

3. Camp to help the disturbed: Ranaop-Anchorage, New York. Life Magazine, 45: 95-101, September 8, 1958.

4. Camping for Emotionally Disturbed Boys. Bloomington, Indiana: Indiana University, Department of Recreation, n.d.

5. Clark, V. D. A camp program for extremely disturbed boys. California Youth Authority Quarterly, 18(Fourth Quarter): 32-38, 1965.

   Camp Kilpatrick, located in the Santa Monica Mountains, was created to treat severely emotionally disturbed delinquent boys (12-16 years old). Group activities, individual education, social treatment, individual interviews, group counseling sessions, and a recreation program were used to facilitate maximum interaction between boys and staff.

6. Devlin, Joseph Thomas. Camping as a therapeutic agent in the casework treatment of maladjusted preadolescent boys from a study of five selected cases from a family agency. Unpublished Master's thesis. Boston, Massachusetts: Boston University, 1949.

+7. Freeburg, William. Camping for the handicapped--a selected bibliography. Therapeutic Recreation Journal, 3(2): 38-41, 1969.

   This bibliography contains literature on camping for blind, deaf, diabetic, emotionally disturbed, mentally retarded, and aged individuals, from 1949-1964.

8. Goodrich, Lois. Unregimented camps for problem children. Camping Therapy: Its Uses in Psychiatry and Rehabilitation, Thomas Power Lowry, editor. Springfield, Illinois: Charles C. Thomas, 1974, pp. 89-97.

   The benefits of camp life for disturbed children are outlined and discussed. Several case studies and letters from parents are used to illustrate changes in children brought about by camping.

9. Hagerty, Robert. Emotionally and socially maladjusted campers. Camping Magazine, 36: 37-40, February 21, 1964.

+10. Herr, David E. Camp counseling with emotionally disturbed adolescents. Exceptional Children, 41(5): 331-332, February 1975.

The purpose of this study was to analyze the effect of a one week camping experience with severely emotionally disturbed participants on counselors' perceptions of them. Also, it sought to determine whether counselors viewed emotionally disturbed campers more positively or negatively at the end of the camp session.

11. Hobbs, Tom R., and George C. Shelton. Therapeutic camping for emotionally disturbed adolescents. Camping Therapy: Its Uses in Psychiatry and Rehabilitation, Thomas Power Lowry, editor. Springfield, Illinois: Charles C. Thomas, 1974, pp. 110-118.

Describes a canoe trip made by nine emotionally disturbed boys and the authors through the wilderness of William B. Bankhead National Forest (Alabama). Benefits of the trip were identified as exposure to challenging but controlled environment, need for team cooperation, removal from disturbing environment to atmosphere that teaches new and better methods of handling interpersonal problems, and exposure to adequate adult models.

12. Hobbs, Tom R., and George C. Shelton. Therapeutic camping for emotionally disturbed adolescents. Hospital and Community Psychiatry, 23(10): 298-301, October 1973.

Discusses the benefits of a five-day camping and canoe trip taken by two counselors and nine emotionally disturbed adolescent boys.

13. Hughes, Ann H., and Harold K. Dudley. An old idea for a new problem: camping as a treatment for the emotionally disturbed in our state hospitals. Adolescence, 8(29): 43-50, Spring 1973.

Proposes camping be used as treatment for emotionally disturbed children and adolescents in state mental hospitals. Camping is seen as providing a more complete therapy milieu. Other attributes of camping programs are listed.

14. Jensen, S. E., A. McCreary-Juhasy, J. S. Brown, and E. M. Hepinstall. Disturbed children in a camp milieu. Canadian Psychiatric Association Journal, 13(4): 371-373, 1968.

Non-hospitalized emotionally disturbed children were divided into camp groups with a ratio of one counselor to three or four children. Program was highly structured with little time for free play. Pre- and post-camp psychiatric assessments and questionnaires filled out by parents, teachers, and participants, as well as daily camp reports, constituted the evaluation of the camping experience.

15. Johnson, Arden J., and Robert Dollgener. Research related to the use of camping for emotionally disturbed children. Paper presented at the American Camping Association National Workshop on Research Related to Camping, Bradford Woods, Martinsville, Indiana, March 22, 1963.

16. Kolodny, Ralph L., and Virginia M. Burns. Specialized camping for a group of disturbed adolescent girls. Social Work, 1(2): 81, April 1956.

17. Lumley, S. A camp for problem campers. Canadian Camping, 19(3): 100-101, 1967.

The Frontier Forest Camp serves emotionally disturbed boys through diagnosis, treatment, and an adjunctive program of games and activities.

18. Lupton, Frank DeHaven. The effects of a behavior management training program on counselor performance in regular day camps which include children with behavior problems. Doctoral dissertation. Urbana-Champaign, Illinois: University of Illinois, 1972. 80 pp. (Available from Dissertation University Microfilms, P. O. Box 1764, Ann Arbor, Michigan, 48106. Order number 72-19,871.)

One group of camp counselors received a training program on behavior management techniques. Trained observers recorded the number and duration of behavior problems to which all counselors responded in a day camp setting. No significant differences were found between counselors who received special training and those who did not.

19. Millen, Clarice Carolyn. Influence of camp activity settings on impulsivity in the disturbed child. Unpublished Master's thesis. Detroit, Michigan: Wayne State University, 1957.

20. Morse, William C., and David Wineman. The therapeutic use of social isolation in a camp for ego-disturbed boys. Journal of Social Issues, 13(1): 32-39, 1957.

21. Palter, E. Exceptional children. Canadian Camping, 24(2): 10, 18-19, 1972.

Discusses how the following groups can fit into a camp setting: gifted, mentally retarded, physically handicapped, diabetic, allergic, perceptually impaired, emotionally disturbed, culturally enriched, and culturally disadvantaged.

22. Paul, Sidney. The environment of a camp for emotionally disturbed boys as a therapeutic force in treatment. Unpublished Master's thesis. New York, New York: Columbia University School of Social Work, 1956.

23. Perlman, Jess. Camps for maladjusted children. The Nervous Child, 6(2): 155-160, April 1947.

24. Pugh, Sally. Emotionally disturbed in-service patients go to camp. Hospital Management, 95: 86, June 1963.

25. Rawson, Harve E. Residential short-term camping for children with behavior problems: a behavior modification approach. Child Welfare, 52(8): 511-520, October 1973.

+26. Rawson, Harve E. Behavior modification in a summer camp setting. Journal of Health, Physical Education, and Recreation, 44(3): 76-78, March 1973.

Behaviorally disoriented children whose behavior patterns prevented their normal progress in school participated in this residential short-term camp. Positive and negative reinforcement techniques were used to alter specific behaviors. Other aspects of the program included academic remediation and interpersonal relationship skills.

27. Richard, Henry C., Carmella S. Serum, and Warner Wilson. Developing problem solving attitudes in emotionally disturbed children. Adolescence, 6(24): 451-456, Winter 1971.

28. Rickard, Henry C., and Michael Dinoff. Behavior change in a therapeutic summer camp: a follow-up study. Journal of Genetic Psychology, 110(2): 181-183, 1967.

A follow-up study was undertaken with emotionally disturbed boys three months after attending a summer camp. Conclusions indicate that parents were generally satisfied with the program and that they felt their sons had made progress as a result of the camp experience.

+29. Robb, Gary M. A correlation between socialization and self-concept in a summer camp program. Therapeutic Recreation Journal, 5(1): 25-29, 1971.

Sixty children in a summer camp sponsored by Children's Psychiatric Centre (Salt Lake City, Utah) were evaluated as to socialization (peer reports, staff ratings) and self-concept (self-drawing and sentence completion). Results indicated that as socialization of campers improved, their self-concepts also improved.

30. Rosen, M. G. Camping for the emotionally disturbed. Children, 6: 86-91, May 1959.

31. Ryan, James L. Therapeutic camping for the emotionally disturbed. North Carolina Recreation and Park Review, 23: 1, January 1970.

32. Scheidlinger, Saul, and Lucy Scheidlinger. The treatment potentialities of the summer camp for children with personality disturbances. The Nervous Child, 6(2): 232-242, 1947.

33. Sternberg, Robert A. Structured camping for the exceptional child. Recreation for the Ill and Handicapped, 10(4): 5, 21, 1966.

Describes a camp for emotionally disturbed, deaf, mentally retarded, aphasic, and neurologically handicapped children, in terms of camper selection, facilities, staff, safety, and activities.

34. Swig, Stanley A. A study of a treatment camp for emotionally disturbed children. Unpublished Master's thesis. Boston, Massachusetts: Boston University, 1950.

+35. Tremonti, Joseph B., and Muriel Reingruber. Kankakee State Hospital summer camping program. Journal of Health, Physical Education, and Recreation, 43(5): 77-78, May 1972.

Describes the day camp program for emotionally disturbed and mentally retarded students at Kankakee (Illinois) State Hospital. Objectives include development of self-preservation skills, development of appreciation for natural resources, development of water safety skills, and improved interaction between residents and members of the community. Observations led to the following conclusions at the end of the program: gross motor skills and coordination had improved, campers had learned good sportsmanship, and social communication skills had improved.

36. Wadsworth, Stephen D. A critical evaluation of Camp Tokhir: an environmental therapy laboratory for communication disordered children. Doctoral dissertation. Provo, Utah: Brigham Young University, 1972.

37. Winter, William D., and Louise M. Winter. Clincial experiences with therapeutic camping. Adolescence, 3(10): 203-216, Summer 1968.

Presents six case histories of boys who were and who were not helped by the therapeutic camping program for emotionally disturbed boys at Shady Grove Boys Ranch in California. Generalizations are made as to what type of boy improved the most and the least. (Shady Grove is no longer operating due to financial problems.)

Wilderness/Survival Camping

38. Adams, W. D. Survival training: its effects on the self-concept and selected personality factors of emotionally disturbed adolescents. Unpublished Doctoral dissertation. Logan, Utah: Utah State University, 1969.

+39. Barcus, Carolyn G., and Roland G. Bergeson. Survival training and mental health: a review. Therapeutic Recreation Journal, 6(1): 3-7, 1972.

Reviews the literature evaluating the contribution of outdoor survival training to mental health. Survival training emphasizes stress experiences that push the participant beyond usual performance. It has been used with emotionally disturbed, delinquent, mentally ill, and underachieving youth.

40. Garlie, Norman W., and David Hoxworth. Mountaineering as a rehabilitative training experience for selected adolescents. Journal of Rehabilitation, 36(3): 38-39, 1970.

The National Outdoor Leadership School provided a challenging outdoor experience in mountaineering for selected adolescent patients from Wyoming State Hospital. The aim was to train leaders for mountaineering and help participants develop a philosophy of responsibility in and for the outdoors.

41. Kimsey, Larry R., and Mary Frost. Long-term camping for emotionally disturbed boys. Diseases of the Nervous System, 32(1): 35-40, January 1971.

Reports results of a survey of 508 fourteen year old emotionally disturbed boys attending the Dallas Salesmanship Club Boys Camp for an average of 16 months. At camp the boys learn from an experiential curriculum rather than formal education. Follow-up studies indicate that the majority of participants re-enter school at their appropriate age-grade level.

42. Loughmiller, Campbell. Wilderness Road. Austin, Texas: The Hogg Foundation, University of Texas, 1965. 139 pp.

Describes and evaluates a residential camp for emotionally disturbed boys in Texas sponsored by the Salesmanship Club of Dallas. The program consists of survival camping in which the boys are responsible for their own basic survival needs for up to two years. Over 10% of participants successfully re-entered school.

43. O'Connell, James. Snow trek. Parks and Recreation, 8(4): 50-51, 55, 1973.

Describes problems and accomplishments of 12 emotionally disturbed teenagers on a one-week hike in sub-zero temperatures in the Idaho mountains.

44. Shank, John W. The effects of a modified outward bound program on the self-concept of emotionally disturbed adolescent patients. Master's thesis. University Park, Pennsylvania: Pennsylvania State University, College of Health, Physical Education and Recreation, November 1975.

Outdoor Education

45. McCreary-Juhasz, A., and S. E. Jensen. Benefits of a school camp experience with emotionally disturbed children in regular classrooms. Exceptional Children, 34: 353, January 1958.

+@46. Outdoor Education Experiences for Emotionally Handicapped Children and Youth. Proceedings from the Special Studies Institute, June 7-9, 1972. Plattsburgh, New York: State University College of Arts and Science, and Albany, New York: New York State Education Department. 153 pp. (Cost from IRUC $9.95.)

These proceedings represent a first attempt in New York State to meet specific needs of emotionally handicapped persons through an outdoor education approach. Various resources for planning and financing outdoor education programs are provided, as well as curriculum aids and evaluation approaches.

*47. Rigothi, Anthony, editor. A Residential School's Outdoor Education Program for Emotionally Handicapped Adolescents. Final project report of the Rhinecliff Union Free School District, Holy Cross Campus, 1974. 118 pp. (ED 101 866, $5.70 plus postage.)

Concept definition and activity description constitute the major focus of implementation proceedings of this outdoor education program designed for adolescents in a residential school for the emotionally disturbed. Student and teacher evaluations of student adjustment were favorable, as were evaluations of academic achievement.

+48. Rillo, Thomas J. Outdoor education as a unique dimension for emotionally handicapped children and youth. Outdoor Education Experiences for Emotionally Handicapped Children and Youth. Proceedings from the Special Studies Institute, June 7-9, 1972. Plattsburgh, New York: State University College of Arts and Science, and Albany, New York: New York State Education Department, pp. 13-31.

Discusses the historical roots of outdoor education at length. Lloyd B. Sharp's interpretations of outdoor education are presented, and this is discussed with reference to the emotionally disturbed child's participation in outdoor education.

49. Romack, Howard. Children's Village experiments. Parks and Recreation, 4(4): 39-41, 55, 1969.

Emotionally disturbed boys participated in an experimental nature program at Children's Village (Dobbs Ferry, New York). They took part in 32 organized nature activities including the study and observation of mammals, reptiles and amphibians, plants, birds, and insects.

50. Rosenstein, Irwin. Outdoor education for emotionally and physically handicapped children. Communicator, 4(2): 8-9, Spring 1973.

The three phases of a plan that utilizes outdoor education as the primary learning process for emotionally handicapped children and youths are described.

51. Wright, Thomas, and Lester Mann. Day camping: outdoor therapeutic education for emotionally disturbed children. American Journal of Orthopsychiatry, 37: 222-223, March 1967.

ON-GOING PROGRAMS IN PHYSICAL EDUCATION, RECREATION, AND RELATED AREAS FOR AUTISTIC AND EMOTIONALLY DISTURBED CHILDREN

This section has been included in the packet to provide examples of ways that physical educators, recreators, teachers, camp directors, and other program leaders are bringing recreation, physical education, and related experiences to autistic and emotionally disturbed children. Programs for autistic and disturbed children were combined into this one section because many of the programs are conducted for both groups.

These particular programs were selected on the basis of several factors: (1) they all replied to a letter or telephone call of inquiry, (2) they are all in the realm of physical education and recreation, and (3) they represent a variety of program philosophies, settings, and activities. No inferences should be made that these represent the best programs simply because they are described here, although it may be that they are among the best. Additional information on any of the programs may be obtained by writing to the contact person listed with each. A listing of programs about which descriptive information was not available when this packet went to print may be found at the end of this section.

For a complete guide to programs and facilities, consult:

U. S. Facilities and Programs for Children with Severe Mental Illness--A Directory, 1974. Available from National Society for Autistic Children, 169 Tampa Avenue, Albany, New York, 12208.

BRIDGE Program

Steven J. Apter, Director
204 East Jefferson Street, Room 402
Syracuse, New York 13202
(315) 472-3331

The BRIDGE Program is a year-round psychoeducational program designed to help disturbed children more effectively and successfully participate in school and improve their ability to relate to others. Since 1970, 15 to 20 children between the ages of seven and 12 have been served each year. The program consists of three facets: (1) Children's Program--this includes a three to four week overnight summer camp with activities such as swimming, boating, sports, and games, in addition to year-round recreational and educational activities offered throughout the year; (2) Family Program--including individual and group counseling for parents of troubled children and recreational and social activities for the whole family; and (3) School Program--regular contact is maintained between BRIDGE staff and staff in the schools that children attend. Each child is assigned a counselor who attends camp, year-round recreation, and family activities with the child.

The Academy of Physical and Social Development

Sumner "Mike" Burg and Martin Karlin, Co-directors
792 Beacon Street
Newton Centre, Massachusetts 02159

The Academy serves over 500 youngsters through physical fitness and physical recreation activities scheduled Tuesday through Saturday for periods of one-and-one-half hours; in addition, there are two evening sessions on Thursday to encourage parent participation. Persons of all ages can and do attend sessions, but most of the participants are juvenile and adolescent boys. Handicapped and non-handicapped boys attend the Academy, especially those with social, emotional, and behavioral problems. Autistic children have been successfully integrated into normal group activities in controlled settings with staff support and encouragement. Referrals come to the Academy from psychiatrists, guidance counselors, hospitals, and parents who saw it listed in the telephone book. Each new participant is individually evaluated as to motor skills and family situation, following which a record of his academic, motor, physical, and behavioral performance is maintained. Activities include contact sports such as judo, karate, hockey, boxing, and wrestling; competitive sports such as archery, fencing, and riflery; and noncompetitive activities such as bicycling and dancing. High proficiency in an activity is not the Academy's goal; emphasis is placed on helping the child release pent-up emotions, control over-aggressive behavior, and relate better to peers and family. A one to five staff:participant ratio is maintained. The Academy offers a day camp five full days per week each summer.

Indiana University Developmental Training Center

Wendell P. Liemohn
Coordinator of Health, Physical Education, and Recreation
2853 East 10th Street
Bloomington, Indiana 47401
(812) 337-6508

The Training Center is affiliated with Indiana University and exists to train university students in adapted physical education. The Center's physical education program is conducted for five through 12 year old educable mentally retarded, emotionally disturbed, and autistic children. (More complete information had not been received from the Center when this packet went to print.)

Children's Health and Developmental Clinic

Warren Johnson, Director
College of Physical Education, Recreation and Health
University of Maryland
College Park, Maryland 20742

The purposes of the Clinic are (1) to provide practical experiences in working with children for students from a variety of disciplines, (2) to serve as a laboratory for research about physical fitness and its effects, and (3) to offer a service to the community. Children who come to the Clinic have a wide range of handicapping conditions, from moderate obesity to difficulties in social adjustment to severe emotional disturbance and/or physical impairment. Each student who works at the Clinic is assigned a child and his/her parents. The program is highly individualized for each child, and activities to remediate the child's motor, perceptual, social, or other problem might include arts and crafts, social events, team games, basic motor skills, fitness/exercise activities, and perceptual-motor development activities.

Adapted Physical Education Program

Jane E. Henkel, Adapted Physical Education Instructor
The League School
567 Kingston Avenue
Brooklyn, New York 11203
(212) 498-2500

Each child who participates in adapted physical education is evaluated in the following areas: body abstraction, laterality and bilaterality, directionality, tracking and depth perception, space perception, kinesthetic awareness, rhythm and sequencing, balance, fine muscle activities (hand-eye coordination, foot-eye coordination), and gross motor skills. Physical education classes are highly individualized, with no more than eight students in each 30 minute lesson and a 3 to 1 student to teacher ratio. Classroom teachers assist in all physical education classes, which affords the physical education teacher the opportunity to work with each child individually during class. (Children with severe motor problems work individually with the instructor at other times.) Lessons are structured, but at least five minutes of free play is given at the end of each lesson. Ms. Henkel feels that all students must succeed in some aspect of the physical education experience to increase motivation for the next lesson and enhance positive feelings.

AIM, Inc.

Adventures in Movement for the Handicapped
Jo A. Geiger, Director
945 Danbury Road
Dayton, Ohio 45420
(513) 294-4611

AIM, Inc. is a national non-profit organization dedicated to teaching movement to visually impaired, hearing impaired, mentally retarded, physically handicapped, and emotionally disturbed children. The AIM method of movement education consists of various types of movement (skipping, hopping) set to music. Actual activities vary depending on abilities of participants. Training sessions are held all around the country for volunteers who become certified AIM teachers after 12 hours of instruction. Volunteers then conduct programs in various settings, usually institutions, for handicapped children.

Therapeutic Recreation Program

Mr. William Daniels, Recreation Specialist
Rose Demonstration School
1690 36th Street, N. W.
Washington, D. C. 20007

Learning disabled and behaviorally disordered children attend Rose School Tuesday through Friday, spending Monday in their regular public school classrooms. Children are referred through the District of Columbia public schools. Currently 27 three to 14-year-old children participate in academic, socialization, recreation, and physical education experiences at the school, which might be termed a therapeutic milieu. The recreation and physical education programs are very structured and consist of gymnastics, competitive athletics, and developmental motor remediation activities, with a one-to-one staff to student ratio utilized for severely motorically impaired children. The Jelleff's Boys and Girls Club in Georgetown is the site for many recreation activities.

After School Activities Program

Elizabeth Salomone, Co-Director
League School of Boston for Seriously Disturbed Children
Erich Lindemann Mental Health Center
Government Center
Boston, Massachusetts 02114

The League School of Boston's total program includes academics, self-help (daily living) skills, socialization skills, a summer camp, and Saturday activities. The after school activities program, funded by the Office for Children, was initiated in 1973. These children are literally taught recreation, so that they will be better able to

cope with leisure time in the future. Approximately 31 children participate four afternoons each week, one-and-one-half hours per afternoon. The program consists of art, creative movement, trips to the community (museums, supermarket), bowling, ice-skating, and active games. For higher functioning children, such skills as use of public transportation and handling money are taught during community trips.

Selective Swim Program

Rosemary B. Allen, Director
11330 Kitsap Way
Bremerton, Washington 98310

This is a program for the children in the Special Education Departments of Bremerton and Central Kitsap (Washington) public schools and the Holly Ridge Center. It is sponsored by the local Bremerton Armed Services YMCA, Bremerton and Kitsap Public Schools, and Kitsap-North Mason Chapter of the American Red Cross. Most participants are non-swimmers when they start this instructional swimming program. Children with a variety of handicapping conditions, including autism, participate in the program (seizure disorders, heart conditions, blind, deaf, physically disabled). Many volunteers are used.

Developmental Music Therapy

Handicapped Children's Early Education Program (HCEEP)
Rutland Center
698 North Pope Street
Athens, Georgia 30601

This Center has a developmental therapy program for emotionally disturbed children who represent all levels of functioning (from minimal response to the environment, to reality-oriented). The Developmental Therapy Curriculum includes behavior, communication, socialization, and academic components. Recently music therapy was added to the curriculum as a means of directing children's progress in the four areas. Initially, children are assessed as to their skills and are placed in treatment classes that correspond to their functioning levels:

Level	Characteristics	Music Therapy Objectives
1	Responds minimally or not at all to environment.	Provide music experiences that will help child respond to environment.
2	Responds to environment within bounds of therapy situation; begins to realize own potential for manipulating surroundings.	Provide music experiences that will help child participate in classroom routines.

Level	Characteristics	Music Therapy Objectives
3	Begins to use individual skills and experiences to guide and support his input into the total group project.	Enhance individual skills needed for effective participation in group projects (such as knowledge of musical terms).
4	Reality-oriented and able to provide direction if group falters.	Present, direct, and encourage development of a wide variety of music experiences.

Other On-Going Programs

This listing of agencies and organizations that have programs in physical education and recreation for emotionally disturbed and autistic children was obtained from IRUC's recently updated state survey.

Sagamore Children's Center
Box 755
Melville, New York 17746
(physical education, recreation, special education)

Mental Health Institute for Children
Allentown State Hospital
Allentown, Pennsylvania 18103
(recreation)

Hillcrest Children's Center
Children's Hospital
1325 W Street, N. W.
Washington, D. C. 20009
(physical education, recreation, special education)

Montgomery County Public Schools
Mark Twain School
1551 Avery Road
Rockville, Maryland 20853
(physical education, recreation, special education)

Virginia Treatment Center for Children
515 North 10th Street
Richmond, Virginia 23219
(recreation)

Re-ed School
8711 La Grange Road
Louisville, Kentucky 40222
(adapted physical education)

Highland Heights Elementary School
Main and Renshaw Streets
Highland Heights, Kentucky 41076
(adapted physical education)

Camp Programs

North Carolina Society for Autistic Children Summer Camp Program
Becky Dossett, Coordinator
399 Biltmore Avenue
Asheville, North Carolina 28801
(704) 253-2361

Summer camp experiences for autistic children are held at already established church camps in North Carolina, with over 100 children served in one-week time periods last summer. There is no charge, due to innovative year-round fund raising--parents donate what they can but nothing is fine. There is a ratio of one counselor to two children, and this ratio is dropped to one:one when extra supervision is needed. Counselors come from many regions and backgrounds, and they receive extensive training prior to camp in cooperation with TEACCH, the program for communication and behavior disordered children at the University of North Carolina. A camp program is planned for each child based on his home program. Activities include swimming, canoeing, hiking, arts and crafts, relay races, games, singing, and campfires, and campers are taught to help at mealtimes. Since the autistic children are attending the camp at the same time as church campers, all children often swim together, play together, and eat together. Campers are accepted from all states (out-of-state children may have to pay a nominal fee). There are no age limits, and children need not be toilet trained.

Camp Academy
Sumner "Mike" Burg and Martin Karlin, Co-Directors
792 Beacon Street
Newton Centre, Massachusetts 02159
Summer Address: 808 West Street
Stoughton, Massachusetts 02072

Summer day camp for children with various emotional, social, and behavioral problems, including autism. Structured classes of instruction are offered in softball, soccer, football, swimming, basketball, wrestling, boxing, martial arts, arts and crafts, and gymnastics.

Warren Center
Janet Gold, Administrator
11 Pierce Street
Brookline, Massachusetts 02146

Voluntary non-profit organization that conducts a therapeutic summer day program for five to 14 year old emotionally disturbed children. The eight week session extends through July and August, Monday

through Friday. Program includes crafts, movement, music, games, sports, cooking, and field trips.

Camp Franklin Lake
Dr. Gerald Burday, Director
47 East 67th Street
New York, New York 10021
Summer Address: Parksville, New York 12768

Residential summer camp for children with retarded development in one or more of the following skill areas: academic, communication and language, perceptual, self-care, and/or socialization. Depending on the child's level of development, program might include rudimentary self-care skills, motor skills, catching and throwing, rhythmics, and games.

Camp Capescapes
Dr. Arnold Miller and Mrs. Eileen Miller, Co-Directors
Language and Cognitive Development Center
25 Huntington Avenue, Suite 617
Boston, Massachusetts 02116
Summer Address: Shawtown Road
Freedom, New Hampshire

Summer residential camp that accommodates 20 four to 14 year old severely disturbed, autistic, and aphasic children. Recreation, daily living skills, and language and cognition are components of the program.

TRIED-AND-TRUE ACTIVITIES FOR AUTISTIC AND EMOTIONALLY DISTURBED CHILDREN

Basic Physical Activities

The therapeutic recreation or adapted physical education program for autistic and emotionally disturbed children will probably have to include activities of a very basic nature to remediate perceptual-motor problems and develop needed skills. These activities need not be boring and repetitive exercises. In fact, boring and repetitive exercises would undoubtedly discourage children from participating. Some successful activities with inexpensive materials are:

- Wand Activities--Wands cost about $2.00 from physical education and recreation equipment suppliers. They can be made less expensively from old broom handles or dowels (sand down the ends), or from rolled up sheets of newspaper that are securely taped. Wand activities enhance balance, basic motor skills of walking, hopping, and jumping, eye-hand coordination, and eye-foot coordination. Activities include--

  --balance wand or floor, hand, finger.
  --reach out in different directions with wand while standing, sitting, walking.
  --hop over wand while holding in both hands.
  --throw and catch wands (partner activity).

- Hoop Activities--Hoops cost about $1.75 from equipment suppliers. They can be made inexpensively from plastic water tubing available in 100 to 400 foot rolls at hardware and large department stores. Cut tubing in seven foot lengths and join with connectors or small pieces of dowels. Hoop activities enhance balance, body image, agility, and motor skills such as hopping and jumping. Activities include--

  --lay hoop on floor and jump in and out.
  --put different parts of body into hoop.
  --roll hoop to partner.
  --roll hoop in different ways while running or walking alongside.

- Bean Bag Activities--Bean bags cost approximately $10.00 per dozen from equipment suppliers. They are easily made by sewing two pieces of sturdy cloth together, leaving a small opening, and filling the cloth bags with beans or birdseed; sew up the small opening after filling. Bean bag activities enhance eye-hand co-ordination, balance, and motor skills of tossing and catching. Activities include--

--balance bean bag on head, shoulder, and arm; walk hop, run.
--throw bean bags at hoop target.
--play catch with bean bags and partners.
--throw and catch bean bag by self.

A highly successful method of combining wand, hoop, and bean bag activities with other challenging ideas is the Obstacle Course. This enhances directionality, coordination, strength, flexibility, balance, and motor skills such as running, jumping, hopping, and crawling. An obstacle course can be improvised from cardboard boxes, benches and chains, tape, rope, tires, and wands. Ladders, parallel bars, and cones may also be added.

. Obstacle Course for children with severe motor problems--

--cardboard boxes to crawl through, crawl around, walk around.
--benches to crawl under, walk on.
--wands to tape between chairs for crawling under or stepping over; to tape to floor in various configurations for crawling or walking along.
--rope to tie securely between two points about 1½ feet off the floor for child to pull self along.

. Obstacle Course for children with less severe motor problems--

--boxes to step into and out of; to walk along, stepping with one foot into each; to run around.
--benches to dive and roll over (cover bench and floor with mat); to step on and jump off; to walk along with one foot on and one foot off.
--tires to roll and run beside; to step into and pull over head; to run along in parallel rows with one foot in each tire.
--tape to mark directions to run; to mark areas in which to jump.

Games of Low Organization

These activities offer much to autistic and emotionally disturbed children: opportunities for success, enjoyment, body awareness, energy release, lessened fear of motion, stimulated use of the senses, and improved coordination, agility, balance, endurance, power, and speed. Some successful examples are:

. What Time Is It, Mr. Fox?--The Fox leaves his den and goes around the field. The Sheep come out and get as close to Fox as they dare and ask "What time is it, Mr. Fox?" Fox says nine o'clock or so on and they are safe. When he says "It's midnight," sheep run for their lives back to the fold. The ones he catches become Foxes (wear colored sleeve bands) and help catch other sheep.

- Call Ball--Players are in circle with one child in center. He tosses ball above his head while calling name of a child in the circle. That child attempts to catch the ball before it bounces more than once (or twice, or three times). If he catches the ball he takes the place of the child in the center tosses the ball up again and calls another name.

- Feather Blowing--Each child has several feathers of various colors and attempts to blow feathers off hand, arm, or other body part. Children may be encouraged to keep feathers in the air by blowing. The same exercise may be done with children lying on their backs.

- Tire Toss--Suspend a tire (or hoop) from a tree (or from the rings or basketball hoop in a gymnasium). Each child is given several trials at throwing bean bags or balls through the hoop or tire. Points for successful tosses may be scored.

Apparatus Activities

These follow definite progressions, which motivates the child to continue in the activity and which also gives the child some security as to what he/she will be doing each day in class.

- Parachute is a good energy-releaser.

- Balance Beam helps child improve motor control in a limited area.

- Parallel Bars, Rings assist the child in focusing attention on the activity.

More Physical Activities

Physical educators and recreators should consider introducing autistic and emotionally disturbed children to activities that can become lifetime leisure pursuits. The traditional sports of baseball, football, soccer, and field hockey may be lots of fun, but very few people ever find opportunities to participate in these after high school. Emphasis on such sports may only prepare the participant for a life as a well-versed spectator. On the other hand, lifetime sports promote both physical fitness and leisure satisfaction. The child who has some skills in these activities can find many avenues for participation through commercial recreation facilities (bowling alleys, ice and roller skating rinks), public recreation facilities (tennis courts, municipal pools), and other agencies and organizations (YMCA/YWCA pools, college and university sports clubs and sports facilities).

Lifetime physical activities that can be learned by emotionally disturbed and autistic children include:

. Swimming.

. Bowling.

. Bicycle (or tricycle or adult three-wheeler) riding.

. Ice Skating or Roller Skating.

Other activities that should be considered for emotionally disturbed and autistic children are:

. Tennis.

. Badminton.

. Archery.

Music and Rhythm Activities

Music and rhythm have been used to reach even the most severely disturbed children. Some suggested activities are:

. Body Sounds--have children slap thighs, clap hands, snap fingers, beat chest, make clicking sounds with tongue, stamp feet.

. Fundamental Rhythms--use drum, hand clap, or 4/4 time record for basic even movement patterns.

--walk (vary by using different direction, tempo).
--run (combinations may be made as walk, walk, run, run, run, walk, run).
--jump (including slide, gallop, skip).
--hop and leap.

. Mulberry Bush--

Here we go round the mulberry bush,
the mulberry bush, the mulberry bush,
Here we go round the mulberry bush,
so early in the morning.
(Children join hands and walk or skip in circle.)
This is the way we wash our clothes....
This is the way we iron our clothes....
This is the way we sweep the floor....
(Children mimic actions described in verses.)

Sources of Additional Activities

Families Play to Grow. Washington, D. C.: Joseph P. Kennedy Jr. Foundation (1701 K Street, N. W., 20006), 1974.

This kit is designed to stimulate handicapped children's participation in play and sports with their families, classmates, and friends. The kit includes a manual, calendar, "I'm a Winner" chart, and ten Family Play Guides to favorite sports and games. Activities are primarily intended for family participation, but they are also suitable for use in physical education and recreation settings.

Geiger, Jo A., compiler. AIM: Adventures in Movement for the Handicapped. Dayton, Ohio: AIM National Office (945 Danbury Road, 45420), 1974.

The AIM method for involving handicapped children in movement experiences is detailed in this handbook. This method combines dance, rhythmics, and basic perceptual motor activities to help handicapped children acquire these necessary skills. A section on autistic children and activities that have been successfully used with these children is included. Suggested AIM activities are (1) encouraging crawling and bouncing, (2) identifying body parts, directions, (3) waist bends and knee bends, (4) rotating head, (5) exercising hands and fingers, (6) walking, (7) free movement. All activities and exercises are accompanied by music, simple counting, or the teacher singing.

@Grosse, Susan J., and Monica C. Becherer. Physical Education Activities for the Uncoordinated Student. West Nyack, New York: Parker Publishing Company, 1975. 236 pp.

Exercises and activities that allow each student to participate at his/her own level and that facilitate working slower students into the mainstream of class participation are presented. Sequential arrangement allows for progressive development of each child. Warm-up coordination exercises, obstacle courses, mat work, trampoline use, and sports activities (among others) are included.

@+Jack, Harold K., and Leon E. Johnson, editors. Physical Activities for Mentally and Emotionally Handicapped Children. (Produced by a seminar in Physical Education for Mentally and Emotionally Handicapped Children.) Philadelphia, Pennsylvania: Temple University, 1971. 60 pp. (Cost $5.25 from IRUC.)

Activities emphasizing the development of motor skills, physical conditioning, and body movement are included in this manual. The manual is intended for use by physical educators and recreators conducting programs for mentally and emotionally handicapped children.

programs for handicapped

The Autistic Child in a Physical Education Class

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Autistic children are not numerous, and many are too severely afflicted to attend public schools. Yet it is probable that every physical educator will meet one, sooner or later—a pupil whose baffling behavior frustrates attempts to help him. The child may be labeled brain-damaged or retarded. On the other hand, he may be rumored to have a touch of genius. These labels alert the physical educator to handle with care, but they do not say much about the nature of the invisible handicap, nor do they explain apparent inconsistencies.

Why, for example, is the child too retarded to follow simple directions in the gym when he does well in mathematics? Why is he incredibly awkward placing his hands on a bat, yet able to finger the keys of a musical instrument? If such inconsistencies are taken as evidence that the child is merely uncooperative, the instructor may resent him. Fortunately, progressive physical educators do not express this resentment verbally, or threaten failure for poor performance. They try to understand the atypical child and design a program which suits his needs.

The behavior of an autistic child is best understood when it is viewed as the result of a serious defect in *context-dependent thinking*. This may result from damage to an area of the brain or from an inherited chemical abnormality. The precise location and cause of the crippling defect is not the concern of the physical educator, but his attitude will be more compassionate when he understands that it is not just the child's stubborn will pitted against his.

One symptom of the autistic child's comprehension disorder comes early in his language development when he has difficulty learning the meaning of pronouns. Such words as "you" and "I" have different meanings, depending on who is speaking. If the child's context-dependent thinking is only moderately impaired, he will eventually learn to talk, but he will have difficulty all his life understanding speech. (Words, unlike numbers, change their meanings in different contexts.)

How will this affect him in a physical education class? He will not understand directions, the simplest ones least of all, because it is simple words which have the most possible meanings. When the instructor shouts, "The ball is right over there!" the child will seem utterly confused, missing the clue of his teacher's glance. In this context *right* does not mean the opposite of left, and *over* does not mean the opposite of under. Yet later the same teacher will say, "Grab that bat in your right hand, and put your left hand under it." A normal child understands that now he is supposed to follow these directions literally. An autistic child cannot make such distinctions, or can do so only by elaborate systems of memory in which each situation must be separately learned.

The physical educator dealing with an autistic child in a gym class must avoid sarcasm or a raised voice. He can try using different words, or calmly demonstrate what he means by action, as if he were helping a person who does not understand English well. Nothing should be done to increase the child's tension as he strains to understand.

It is not certain whether an autistic child's excitable nervous system results from his confusion or is part of his basic disability. But it is clear that he is easily excited, and will laugh, jerk, cry, or tremble for less reason than a normal child. When he has been overstimulated, he must be given a chance to unwind.

At times, autistic children seem dreamy and inattentive, the opposite of excited. This is the way their systems "recover" from the intensity of their reactions, shutting off to prevent further stimulation. When the instructor calls the child to attention, he should keep in mind that his pupil will feel like a person being wakened in the middle of the night. He has to be coaxed into awareness of what is happening around him, not blasted out of his reverie.

The child's interaction with the rest of the class will be affected by his impairment in understanding context-dependent ideas. He will be a hindrance in team sports which depend on knowing the right action at the right time, in relation to the movement of the game. His classmates will soon realize that having him on their team amounts to a sure loss. They are not being intentionally cruel when they moan at the sound of his name, just revealing that they are normally competitive youngsters who like a sporting chance at winning. It is not fair to them, nor to the autistic child, to insist that he participate in such sports. The impairment is so basic that practice will not erase it any more than repeated practice will teach a blind child to see.

The physical educator, recognizing that the autistic child is a social loner, may feel that he needs the experience of working for the good of a group. This can be done through such sports as relay racing, swimming, and track skills which do not require quick decisions in rapidly changing conditions. One autistic boy in a regular gym class was excused from ordinary team sports, but given training exercises to prepare him for physical fitness competitions later that year. He proved there was nothing wrong with his endurance and attitude by doing 19 consecutive pull-ups for his team, to their heart-warming cheers.

In the matter of coordination there seems to be great variation among autistic children. Some have measurable physical disabilities, perhaps brought about by the same disaster which impaired their ability to understand.

The autistic child is a hindrance in team sports which depend on knowing the right action at the right time in relation to the movement of the game.

Others appear physically normal, but are awkward when they attempt to mimic others. If the teacher is demonstrating an exercise while facing them, he is inflicting a mental exercise as well as a physical one. All of the movements have to be reversed by the imagination, and this shift in viewpoint comes hard to the autistic child. Demonstrations should be made facing in the same direction. Often it is necessary to stand behind the child and put his arms through the motions, but this should be done in private to avoid humiliation.

Sometimes an autistic child's eccentric behavior will seem like willful disruption. For example, one boy interrupted his teacher's demonstrations by booming out answers to rhetorical questions—the wrong answers, at that. He truthfully did not recognize that in this context no answer was expected. On other occasions, such a child will appear deaf when he is supposed to respond. At best, he will be slow to react to orders and signals. This may be from lack of comprehension, crippling uncertainty about the correct response, or both.

The autistic pupil may be annoyingly slow for another reason. He depends on rule and ritual to bring order to the chaotic demands the world seems to impose on him. In the locker room and shower, for example, he needs extra time to dress and wash. Once he has learned how to do something, he does it the same way in any situation, unable to speed up some steps and eliminate others when they are not essential.

With all these considerations, the physical educator may think that the simplest and wisest procedure is to excuse the autistic child from the gym requirement. Sometimes protective parents request this, rather than risk having the child's anxiety worsened by mishandling.

Yet there may be no other child in the school who stands to benefit more from a physical education program designed for his personal needs, and mindful of his limitations. Because he has been humiliated by failure in the past, he needs to build his self-confidence and improve his image in the eyes of others. He needs to be guided to find out what sports he can perform, and encouraged to practice at his own rate. The benefits of exercise as a natural relaxant may reduce his need for medication and encourage him to work off his tensions in a socially acceptable way for the rest of his life.

Learning To Talk While Developing Motor Skills

ALICIA HAMILTON is the demonstration teacher and supervisor of the Preschool for Children with Communication Disorders at the University of Denver Speech and Hearing Center. PRIDE ANDERSON is a member of the Health, Physical Education and Recreation Department and served as both consultant and teacher in implementing motor skill training with the preschool children. KAROL MERTEN is a member of the faculty of the Department of Communication Disorders and supervises the speech therapy of the communication handicapped preschool children.

At the University of Denver's Speech and Hearing Center, special young children attend a daily preschool program designed to remediate a variety of communication handicaps. The curriculum of the preschool is open-ended, and self-selected activity at play centers both indoors and outdoors is emphasized. The primary goal of the preschool is to provide language stimulation for the children in a natural way.

In 1969-70, with the help of the University's Department of Health, Physical Education and Recreation, it was decided to emphasize and experiment with movement education. The preschool youngsters were systematically introduced to a variety of basic activities selected to promote the acquisition of new motor skills. The plan was to encourage the development of language while increasing motor competence. The curriculum included activities on the trampoline and tumbling mats, mother-child swimming practice, and rhythmic work, as well as the usual opportunities for climbing on a jungle gym, throwing balls, etc. Emphasis was placed on all aspects of growth (physical, intellectual, social, emotional) as interrelated.

Facilitating Language Development

In implementing the motor skill training program for use with special young children, the role of the teacher was defined as that of architect, participant, and reinforcer. It was her obligation to provide language stimulation as narrator of the child's activities. She talked about what the child could do, what he was doing, and how he was doing it (exclusive of value judgments), in a planned effort to enrich both his receptive and expressive language. Demands for speech were minimized. Special emphasis was placed throughout the project on the use of prepositions as a way of maximizing learning about spatial relationships, directionality, and laterality.

Narration is an important, natural aspect of the development of language. Children learn first receptive language skills—listening, comprehending, perceiving. Then, they move on to the development of expressive language skills—talking and communicating. The best example of early language learning is the mother-child model. Most mothers narrate spontaneously what their child is doing, seeing, and feeling, and then expand on the child's utterances as he starts to talk. The very young child may not understand the mother's specific words, but he does develop a functional equivalent, and so understands the whole rather than specific parts. Such narration and expansion avoids formal stereotyped, repetitious, demanding exercises which would restrict and limit the child's exploration of his world and his place in it. If language is to be vital, it must be acquired naturally.

Implementing Motor Skill Training in an Open-Ended Program

In an open preschool, there are countless opportunities for narration about the child's activity as he engages in self-selected tasks, particularly when the tasks involve physical activity. It is easy and natural to narrate for a child as he tries out jungle gym, climbing dome, walking boards, trampoline, swimming pool, activities on a tumbling mat, or when he is pretending to be a frog, seal, crab, inch-worm, airplane, leaf, or tugboat. Walking, running, sliding, rolling, jumping, hopping, tossing, pushing, pulling, hitting, swinging, climbing, hanging—each provides new opportunities for language stimulation. As meaning is ascribed to the words narrated, the child absorbs them through use. As a result, considerable contextural variety can be presented in relation to different tasks, exposing the children to a large vocabulary, and providing contrasts in concepts such as up/down, heavy/light, in/out, under/on.

Daily written records were kept at the University of Denver describing tasks, equipment, participation of the children, adult narration, and verbal responses of the children. Examples of narration from the record include:

Task: Jumping on tire (on playground)

Adult narration: Can you jump on the tire? You are jumping on the tire. See how high Tommy jumps! That's a good trick!

Child's comments: I ready to jump now. I jump. I know a trick!

Task: Climbing on jungle gym

Adult narration: Can you climb up? Look how high you are! You went up the ladder.

Child's comments: I'm climbing up here. That's too high!

Swimming proved to be an ideal way to encourage positive parent-child interaction and to involve individual mothers with their child's progress and friends in school. Teachers moved freely within the group serving as models for stimulating language, teaching relaxation in the water, and offering support in developing warm mother-child relationships centered around a learning task. Mothers interacting with other mothers discovered mutual interests and support for shared problems.

Goals related to physical, social and emotional growth seemed realistically conceived. Children changed during the year, from a hesitant, unsure approach to new motor tasks to enthusiastic competence and a willingness to persevere at difficult activities. While coordination gains varied from child to child, individual satisfaction derived from concrete achievement was obvious among all participants and commented on by the children's mothers. Success experiences were many so that self-esteem was enhanced. As evidence, the children began to approach new tasks with generalized self-confidence. This was particularly evident in relation to work on the trampoline.

Countless opportunities were provided through movement education for facilitating language development, and it was easy to stress narration in a natural way. However, language stimulation in this sense was an established integral part of the daily preschool session so that motor skill training was introduced into a setting where these concepts were already an important part of the curriculum. Narration was offered continuously but unobtrusively, as the children proceeded through the preschool routines and activities; as they fingerpainted, worked with clay, engaged in dramatic play, cooked, worked with blocks, or tended the gerbils and canary. Movement education became another way to enrich the curriculum. In addition, each child received daily individual speech therapy designed to remediate his special difficulty. So, while Center records show objective data to support the conclusion that language growth was demonstrated by the children, the stimulation for growth came from many sources. The total program was brought to bear on the remediation of a specific communication disorder in a given child.

This program may have generalized relevance for many early childhood educators of "normal" children as well as for those concerned with the "special" or "disadvantaged" young child. In either case, it is significant that on a national level children with learning problems of various kinds seem to show particular retardation in the development of motor competency (see "Motor Development and Performance of Emotionally Disturbed Children," by Hally B. W. Poindexter, in the June 1969 JOHPER, pp. 69-71). Some are as much as two to four years behind the "average" child. There is obvious need for early intervention. The program described here is one response to such a need on the part of the child with a communication handicap.

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The Buttonwood Farms Project

A PHYSICAL EDUCATION-RECREATION PROGRAM FOR EMOTIONALLY DISTURBED AND MENTALLY RETARDED CHILDREN

DONALD R. HILSENDAGER, assistant professor, and HAROLD K. JACK, chairman, Department of Health, Physical Education, and Recreation, Temple University, Philadelphia, Pennsylvania, and LESTER MANN, supervisor of special education, Montgomery (Pennsylvania) County Schools, and executive director, Buttonwood Farms, Inc., cooperated in the preparation of the material for this feature. It is a report of the physical activity program aspect of the Buttonwood Farms Project of Temple University. *Studies involved in this project are supported by grant 5 T1-MH-8543-1,5 from the National Institute of Mental Health, U.S. Public Health Service.*

One of the basic components of a satisfying and enjoyable life is freedom and ease of movement. Man is created to move. Biologically some degree of movement is necessary to maintain life, and the individual who can move freely can express himself through movement as a free individual. Many of his basic patterns of life, comprehension, and reaction to his environment depend upon efficiency of movement. Recognition of physical achievement is part of life and although the adult tends to undervalue physical achievement, youth or the child gains recognition for his physical abilities. The peer group of childhood places a premium on the physical.

Coordination, strength, fitness, and acquisition of fundamental skills are requisites for positive living and aid the child and the adult in adjusting to his environment. Lack of these physical attributes limits one's exploration and mastery of his environment while depriving one of significant stimuli available to the active individual. The freedom of movement provided by possession of an adequate level of performance fosters a feeling of confidence, achievement, and success which every individual needs, and which the handicapped child needs in particular. Through freedom and mastery of movement, the worth of the individual or self is clearly demonstrated, and self-esteem is enhanced.

The emotionally disturbed child through physical activity in the physical education-recreation complex is better prepared to meet the challenges of life and adjust to his environment. The ingredients of activity essential to the child with emotional problems can be described as follows:

1. *Fitness* provides the strength and vitality to live effectively and efficiently. Increased strength will delay the onset of fatigue. Thus work, play, or maintenance of one's life becomes more enjoyable. The person who fatigues easily does not have the strength and endurance to cope with the many facets of living. Alertness as a result of fitness is a characteristic of the healthy and fit person.

2. *Agility* is associated with coordination, suppleness of body, ease of movement, and confidence in self. Thus, agility imparts a feeling of security and, consequently, ease of movement and handling of the body parts, as well as a feeling of confidence and a healthful self-image. Agility likewise helps to prevent injury, particularly for the handicapped.

3. *Vitality* derives from the reserve or "stored up" energy which may be used to meet the needs of daily living. High vitality leads to more resistance to fatigue and disease, thus resulting in less illness and a quicker recovery period from either injury or disease. Vitality gives one the strength, or "bounce," to enjoy life. Abundancy of life leads to happiness. Likewise, vitality provides the strength to do one's school work, perform the daily tasks associated with living, and have time to enjoy recreation and association with others. Vigorous play and a well-rounded schedule of physical activity are necessary for the achievement and maintenance of vitality.

4. *Change of pace* furthers the growth and development of children and the maintenance of health for all individuals. Today we increasingly find that play or physical activity is important to life. For emotionally disturbed children a change of pace will provide stimulation and an interesting change of routine. The give and take of a game or recreational situation, the drive to achieve, and the desire to excel are all associated with play and recreational activities.

5. *Physical achievement* results from meeting or overcoming a series of challenges, obstacles, or problems, both physical and mental. The normal individual is stimulated mentally and physically by meeting problems, challenges, or obstacles and eventually overcoming them. Success or achievement is one of the foundation stones for healthful living. In effect, success in games, ability to play well, and success in individual efforts of coordination, strength, or body performance is one avenue to the development of the well-adjusted individual.

Self-realization is an important concept to guide the efforts directed at helping the emotionally disturbed child, so that he can find himself, realize his worth, and contribute to the society in which he lives. Pride of achievement in any situation is important. Through achievement a degree of success, group approval, and acceptance is possible. In like manner, the child's self-confidence increases, whether the acceptance by others be acknowledged in verbal terms, expressed through recognition of physical achievements, or measured by the ability to create.

To implement this concept, the physical activity program aspect of the Buttonwood Farms Project of Temple University has been developed in four phases: physical conditioning, fundamental movement, sports skill commonalities, and recreational activities. The primary purpose of each program is development of the child's control of his body, with concomitant improvements in body image, self-concept, and self-confidence, so that he is happier and able to function more effectively as an independent member of society. The following descriptions include the specific purposes of each program.

Physical Conditioning

The physical conditioning program is organized to improve the total physical fitness of the child, with emphasis on continuous, vigorous, total body activity. Priority is given to developing circulorespiratory endurance, which can be achieved by participation in activities which also develop a number of other physical attributes. Activities are selected which will improve performance in strength, speed, agility, flexibility, and balance and are conducted in a continuous and vigorous manner.

The above goal can be attained with emotionally and mentally handicapped children only through a program which is particularly sensitive to individual differences. When comparing a group of handicapped children with a group of normal children, the former will typically exhibit more extreme variability in characteristics such as physical performance level, motivational level, age and related experiences, and rate of improvement. A finite progression in all activities becomes a necessity.

It has been found that modified obstacle and circuit courses best serve the requirements for developing the physical fitness of emotionally disturbed and mentally retarded children: (1) individual differences can be allowed for by including different difficulty levels for each station; (2) the different physical attributes and bodily areas can be developed by specific activities at the several stations; (3) the selection of stations and the sequence can be made meaningful to the child; and (4) performance of the entire course may be accomplished at different rates, thereby providing another opportunity for meeting individual differences.

Fundamental Movement

The fundamental movement program is designed to strengthen the child's least adequate area of physical performance. In this correction type of program, activities basic for daily living receive priority.

Fundamental movement patterns, e.g., walking, running, jumping, etc., of each child are analyzed in terms of comparative proficiency, developmental level, and chronological age of the child. The analysis is carried out from a kinesiological standpoint to identify what is causing faulty performance. Each movement pattern is analyzed at three basic levels: (1) fundamental movements required in the pattern (flexion, abduction, supination, etc.); (2) identification of anatomical area most affected, i.e., joint or joints over which the movement is taking or should be taking place (ankle, knee, shoulder, etc.); and (3) the physical attribute of that body part which is inadequate, e.g., strength, kinesthesia, coordination, etc.

When the causal factors have been identified, exercises and activities are organized or selected from among activities which have previously been found effective in correcting the identified weakness. Exactness of performance in such activities is essential, and consequently this program is conducted on an individual basis for maximum benefits.

Sports Skill Commonalities

The purpose of this program is to teach the children the similarities within each group of basic sports skills. For example, when teaching throwing, the materials and teaching methodology emphasize similarities within the throwing movement rather than the minor adjustments needed for a specific throw. It has been found that the emotionally disturbed and mentally retarded child needs help in *generalization* so as to foster positive transfer of motor learning. Proficiency in the basic skills should enable the participant to learn additional skills in a short period of time. Such transfer is particularly important for the handicapped child, in whom automatic body functions are quite limited. The handicapped child, because of his gross disturbances in coordination and body image disturbance, does not automatize effectively many of the skills that come so readily to the normal child.

An additional value implicit in this program is that sports skills, even in primitive form, are so basic to the identification of a child with his peer group—if not di-

rectly in terms of the child's interacting and participating with other children, then at least in terms of his own self-appraisal and his parents' awareness of him as a child with increasing ability to master physical skills.

Physical Recreation Activities

The specific purposes of this program are (1) to aid the child to apply the knowledge and skills learned in the basic sports skills so that some measure of success in games and activities commonly participated in by normal children may be achieved and (2) to aid the child in building a repertoire of games and activities, both for immediate recreational use and for future use as he grows older.

The values of recreation for the handicapped child have not been fully recognized to date, though increasingly physical education as such is receiving more and more acceptance in mental health and medical centers. Physical recreation has values basic to an individual's participation in the community. A child's acceptance as an individual depends to a large degree on his self-image as a recreational creature who is able to compete effectively with other children. It has been shown that competing, even if not successful, has greater benefits than no competition at all. Within limits, and certainly limits often exist with the severely handicapped child, nearly every child can be taught the knowledge and skills necessary for some basic recreational participation. Participation in a physical recreation activity is personally gratifying, is gratifying to the child's parents, and can serve as a basic socializing factor in terms of the child's joining together with other children in a give-and-take interpersonal relational way.

Implementation of the Program

The physical education-recreation program of Buttonwood Farms is implemented by means of (1) a day camp and (2) a Saturday recreation program. In the day camp the children are enrolled for up to eight weeks and attend five days a week. Most of their program is built upon the four phases of this physical recreation complex, supplemented by academic skills and other camping activities traditional to the camping environment.

The Saturday recreation program is designed in a similar manner but with the addition of community contact, by providing varying experiences for children through visits, trips, or special event situations. Thus, acquaintance with a different social setting from that with which they are familiar is provided. The significant gains in growth and development which accrue from each of these two programs must always be kept in mind.

The handicapped child needs formal, structured teaching in physical, developmental, and recreation activities to a far greater degree than the normal child. Without direct, specific training to develop areas of strength and minimize and remedy areas of weakness, he falls further and further behind in the acquisition of physical skills and recreational capabilities. These children are victims of the vicious circle of defeat and failure, which contributes to a considerable degree to their isolation from the community in general and from other children specifically. Nonparticipation leads to deficiencies in the physical areas as well, so that mentally and emotionally handicapped children are not only limited in terms of their intellectual-social adjustment but further become physically inadequate, noncoping organisms.

The mentally and emotionally handicapped child not only needs a greater amount of training than the normal child, but also requires a greater variety and intensity of training circumstances and activities. Special effort must be expended for the handicapped child, for he must achieve closer to his maximum potential than a normal child if he is to achieve social competency.

A CIRCUIT COURSE TO DEVELOP PHYSICAL FITNESS

One of the major reasons that standard and generally accepted physical fitness programs have been found inadequate for meeting the unique needs of the handicapped child is because the programs cannot be adjusted to the numerous and extensive individual differences found in groups of emotionally disturbed and mentally retarded children.

At the Buttonwood Farms Camp a procedure which develops physical fitness and which best adjusts for individual differences has been found to be the circuit course. This type of training combines the idea of an obstacle course with the concept of using different stations to develop different areas of the body. A child is expected to run from one station to another and perform various tasks or duties at, or while maneuvering through, each station or obstacle. Each obstacle or station in the circuit is designed to elicit specific patterns of movement and behavior from the handicapped child.

The circuit course is not easily adaptable to individual variations but has proved effective in eliciting the movements desired to develop specific physical skills. It has the added advantage of being a meaningful experience to the children from motivational and social standpoints, since the course activities are closely allied to the child's daily activities. The circuit course also has the advantage of not requiring extensive explanation, training, etc. With

groups of emotionally disturbed and mentally retarded children, the physical fitness values of, say calisthenics, are thwarted as the program bogs down in extensive explanations and even coercion in an effort to obtain desired patterns of movement—their value being entirely vitiated through the frustrations and resistance so induced.

In order to realize the potential physical development from the circuit course it is necessary to plan specific activities for each part of the body and for the particular physical skills which are to be developed. In the Temple University-Buttonwood Farms circuit course programs, the physical attributes emphasized were (1) agility, (2) balance, (3) coordination, (4) endurance, (5) flexibility, (6) kinesthesia, (7) speed, and (8) strength. In the development of our program each circuit course encompassed within its totality the development of the eight physical attributes, with attention being devoted to each area of the body in one activity or another. There is no specific order required in developing the various physical attributes, with the exception of including some of the simpler and less strenuous activities early in the sequence so that the child can warm up as he begins the course. Additional warm-up effect is secured by the child's beginning the course slowly, e.g., as with a jogging exercise, before picking up speed and emphasis as he proceeds from one station to the next.

In order to challenge each child at his own level, it was imperative that individual activities, as well as the overall circuit, be adjustable. This was accomplished by (1) increasing the number of stations in the circuit course (generally, however, we have found it undesirable to have more than ten stations plus the running interval between stations); (2) allowing the more adept child to continue around the course several times while the slower one was still making his way; and (3) providing at each station a choice of activities of different levels of difficulty, but each designed to develop the body area and physical attribute planned for that station. The following is an example of a typical circuit course utilized at the Buttonwood Farms Summer Camp.

1. Jog downhill: distance 10 yards, slowly (emphasis: warm-up, agility).
2. Walk balance beam: rapidly (emphasis: balance, coordination).
3. Jog to next station: distance 10 yards, increased speed from station 1 (emphasis: warmup).
4. Forward rolls across mat: continuous and rapid (emphasis: coordination, kinesthesia).
5. Run backward to next station: distance 10 yards, rapidly (emphasis: speed, coordination).
6. Low obstacle jump: series of 3 obstacles, 3 feet apart; 12-inch height, 18-inch height, 24-inch height (emphasis: explosive strength of legs, agility).
7. Sprint to next station: distance 15 yards (emphasis: speed, circulorespiratory endurance).
8. Zigzag run through positioned group of medicine balls: 3 feet interval between each of the 5 balls (emphasis: agility, speed).
9. Hop to next station: distance 6 yards (emphasis: explosive strength, muscular endurance, balance).
10. Crab walk under series of 5 obstacles each 2 feet apart: rapid (emphasis: upper arm strength, muscular endurance, coordination, flexibility).
11. Sprint to next station: distance 15 yards (emphasis: speed, circulorespiratory endurance).
12. Elephant climb: Swedish box or a barrel covered with a mat over which the child must scramble (emphasis: coordination, kinesthesia, flexibility, explosive strength).
13. Sprint to next station: distance 30 yards (emphasis: circulorespiratory endurance, speed).
14. Tunnel crawl: tunnel 3 feet in diameter and 12 feet long (emphasis: coordination).
15. Uphill sprint to finish line (same point as starting line): distance 5 yards (emphasis: explosive strength, speed).
16. Deep breathing and shoulder shrugs (emphasis: tension reduction).

The example above represents one type of circuit course that is generally adaptable to many types of handicapped children (mentally retarded, cerebral palsied, deaf, emotionally disturbed, etc.) functioning on widely varied levels of performance. The inventive instructor, of course, will be able to adapt and develop his own devices and activities to meet his own particular children's needs. For example, possible adaptations of the circuit course are the following: At station 2, a four-inch wide balance beam may be furnished in addition to the two-inch beam in order to provide an easier activity for the less adept child. At station 4, a more difficult level might include the backward roll or a forward and backward roll combination. At station 6, the number of obstacles which are to be jumped may be different for each child. At station 9, the child may be urged to hop either on both feet or on one foot, depending upon his abilities. At station 10, he may be allowed to crawl under the obstacles rather than using the crab walk. At station 12, "elephants" of different heights may be available, etc. Likewise, the time to perform the runs may be varied, as well as the time required to complete the entire circuit course.

In his attempt to secure maximum benefits for the amount of time his children participate in the course, the teacher may find the following points of value:

1. The activities should be selected to encourage continuous participation. The circuit should be designed so that the child does not need to stop or wait in line at any of the stations but, rather, can continue his

progress in a smooth continuous fashion from one station to the next, as well as through each station. There are certain activities which, because of their unique values, should be used even if they violate this general rule; nevertheless, the rule should be observed whenever possible.

2. It is valuable to have instructors or assistants present at various stations to encourage, urge, and guide children through the activities in a manner that will secure maximum participation.

3. For additional motivational purposes a chart of total time required for each child to complete the course may be kept and posted. However, it has been found that the nature of the course itself furnishes considerable motivation and interest on the part of the atypical child, and only with the more capable groups does the chart prove to be of added value.

At Buttonwood Farms Camp we have found a need to develop several circuit courses for each group of children. Any single program should not be used more than an average of five times in succession. A continuous system with the same type of scheduling has tended to result in boredom and lack of interest in participation. Alternation with different circuit courses for five day periods means that the child can return to the original program with a new and unprejudiced approach. When using alternate programs, the benefits of previous practice have been revealed to a greater degree, and there is minimization of the inhibitions that continued training in any activity inevitably accumulates. The following types of activities have been found valuable and can be utilized to prepare new courses for groups of atypical children with unique needs, or for adding variety to previously used courses for the exceptional child:

1. *Rope swinging*. The rope should have a knot for children to stand on, to accommodate those who cannot hold on otherwise. Initially the instructor may need to assist certain children with hanging on to the rope; the value of exercising the arms and positioning the body to maintain balance and coordination will still be provided. For variety, the child may swing down from an elevated level to a lower one, e.g., while hanging on with one of two hands, swing from a table to a mat on the floor. The children particularly enjoy this activity. (Emphasis: arm, shoulder, and trunk strength and endurance.)

2. *Elevated balance beam walking*. The child navigates over a balance beam, which has its ends resting on the tops of two tables. The beam is used as a bridge for the child to walk over or crawl from one table to the other. (Emphasis: balance and coordination.) This activity works quite well in conjunction with the first activity, using the table at the end of the balance beam as the elevated area for the rope swing.

3. *Picnic table obstacle run*. The child runs to the table, jumps on the bench, climbs over the table, steps down on the opposite bench, and leaps to the ground. A number of tables may be used in series. (Emphasis: upper and lower leg strength and circulorespiratory endurance.)

4. *Mini-trampolining*. The child grasps a rope fastened at eye level and, while bouncing, uses it for decreasing support as skill and confidence increase. A sporter must be used. (Emphasis: kinesthesia, balance, explosive strength, and jumping skills.)

5. *Weight-rope pull*. The child pulls on a rope which has been thrown over a high beam or tree limb and has a five-pound weight tied to the end. The child should be able to see the weight as it is lifted into the air so he can see the effect his efforts are creating, providing perceptual-conceptual development as well as body training. For safety, the weight should be at least three feet away from the child, and it should not be possible for it to be pulled over the top of the beam. Individual differences may be allowed for by furnishing a variety of weights, all in position to be used, at the same station. Different color weights or ropes help the child quickly spot his appropriate rope and weight. While the child will need to stop for this activity, its value in overall development means that the violation of the basic rule of continuous activity is justified. (Emphasis: trunk, shoulder girdle, and upper arm strength.)

6. *Flexed leg sit up*. A rope is securely tied around a table top; the child gets up on the table, places his feet under the rope and with his knees flexed lies back out over the edge of the table. An instructor places his hands against the child's back to reassure him and to prevent him from falling backward beyond the horizontal position. The child then sits up in a vertical position. Participation in this "stop" activity strengthens abdominal muscles (very difficult to exercise in any other single activity). It should be noted that the child is developing his abdominal muscles even when he is not able to sit up but only able to suspend himself in a horizontal position.

7. *Ramp running*. The child runs up a ramp (boarded incline) and jumps off. The ramp can be 48 inches long, 36 inches wide, and on the high end range in height from 6 to 36 inches, thereby being adjustable to differences in ability. The child should at different times be encouraged to both leap and jump to master these basic body movements. (Emphasis: speed, explosive strength, coordination.)

8. *Resistance crawling*. The child lies prone on a mat and has it folded over on top of him so that he must use his arms or legs to move through. Crawling is induced even in the most uncomprehending of children, and coordination is developed.

9. *Stepping stones*. The child steps or jumps from rock to rock in a shallow stream or from one piece of plastic tile to other pieces set at different distances apart. (There is the danger of sprained ankles.) The tiles can be separated by various distances to allow for individual differences. (Emphasis: agility, coordination, flexibility.)

10. *Under-over obstacle run*. The child alternates going under and over a series of five obstacles 5 feet apart, each 36 inches wide and 24 inches high. The obstacles the child is to crawl under (obstacles 1, 3, and 5) may be painted white, and the obstacles he is to crawl over (obstacles 2 and 4) may be painted black as cues for the child. The obstacles become more adaptable to different age and ability groups if the side standards are placed firmly in the ground and the cross beam is adjustable from a 12-inch to a 48-inch height. (Emphasis: agility, kinesthesia, flexibility, coordination.)

11. *Vertical ladder climbing*. The child climbs up a ladder inclined 5 degrees from the vertical position and climbs down another ladder inclined at the same angle. Individual differences may be allowed for by (a) furnishing additional ladders at the same station and positioning them at increased angles from the vertical position, (b) encouraging the child to climb up and down on the back side of the ladder, (c) using rope ladders, and (d) using ladders with more rungs. (Emphasis: coordination, grip strength.)

12. *Horizontal ladder climbing*. From a short (two-rung) vertical ladder, the child reaches up and grasps the first rung of the ladder which is horizontal to the ground and suspended just high enough so that the child's feet cannot touch the ground. The horizontal ladder should include at least five rungs and be at least eight feet long. The child may progress from one end of the ladder to the other by grasping the rungs with alternating handwork, by getting both hands on a rung before reaching for the next or, initially, even by crawling along the top of the ladder. (Emphasis: trunk, shoulder girdle, and arm strength and endurance.)

Finally, the circuit course exercises can be readily scored—whether in terms of time, difficulty level utilized on each activity, or a combination of these two factors. The circuit course itself thereby permits a continuous assessment of the child's progress in a reasonably objective fashion, both to measure its own effectiveness and to study the child's development in other areas. □

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The Influence Of A Physical Education Program On The Basic Motor Fitness Of Emotionally Disturbed Children

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REVIEW OF LITERATURE AND PURPOSE OF STUDY

The emotionally disturbed (ED) child possesses limited flexibility and restricted behavior that hinders adaptation to changing environments. As a result, there is a subsequent reduction of behavioral freedom[1]. The ED exhibits impaired learning, poor interpersonal relationships, inappropriate behavior under normal conditions, and deficient perceptual-motor skills[1,2,3].

The ED, according to Poindexter[4], are not significantly more hyperactive than the normal in gross motor activities; seem to score less well than their normal peers on measures of strength, power, agility, balance, and speed; are unaccustomed to success, and, therefore, need to experience success in a structured teacher supported physical education program; benefit most from physical education activities appropriate to the normal child one to two years younger; will, when participating in vigorous gross motor activities, sometimes exhibit heightened excitability, confusion, hostility, and irritability; and benefit most from a physical education program that includes quiet periods along with vigorous motor activity.

Arnheim and others[5] state that the ED often come to physical education with impaired abilities to learn motor skills. Moreover, they maintain that the ED must learn how to play and to enjoy physical activity and that once the ED learn how to play, they can, through physical activities, experiment with control of themselves as well as their environment. Furthermore, they believe that there is a need to discover methods that helps the ED lead self-satisfying, independent lives. In doing this, the ED are, through physical education, provided opportunities for releasing tension and acquiring social skills.

Daniels and Davies[6] maintain that the ED, through stimulating physical activity, tend to develop acceptable social responses. They also state that the ED need to improve physical fitness and acquire motor skills so they can be placed in physical education situations where success and recognition are possible.

Auxter and others[7] support the role of physical education in the ED's attaining success and recognition. These authors indicate that physical education might be helpful in positively altering the ED's body image.

Hilsendager and others[8] state that the ED can, through physical education, become better prepared to meet the challenges of life and to adjust to their environment. According to these authors, acquisition of strength, coordination, and

motor skills is fundamental, aids the ED in adjusting to their environment, and provides a means for them to break the defeat and failure syndrome that contributes to their isolated state.

Kiphard[3] relates that the ED with weak or impaired motor skills will react either with inhibition or complete lack of restraint when placed in physical education. He further states that this functional inferiority in motor skills tends to make the ED appear useless to their peers.

Fait[4] says that the lack of success in physical education often is an underlying cause of the ED child's dislike of physical education. He further maintains that the ED is subnormal in physical fitness and that this factor is a primary basis for the ED's not doing well in physical education. He, therefore, suggests that a developmental physical education program will greatly benefit the ED.

Because of the implications of the preceding studies, this study was undertaken to determine the influence of a structured physical education program on the basic motor fitness of ED children.

Procedures

Subjects. Thirty-eight ED, 26 males and 12 females, enrolled in a summer program in an urban midwestern school district participated in the study. Eighteen subjects were six years old and 20 were seven years old.

Method. These 38 subjects were randomly selected from a group of ED attending a summer education program. From this initial grouping, 19 were randomly assigned to an experimental group, and 10 were randomly assigned to a control group so that there were equal ratios of males and females in each group and so that chronological age groups were similar. Table 1 shows that the two groups were equal in Basic Motor Fitness at the beginning of the program.

The experimental group participated in a daily 20 minutes' structured physical education program for five weeks. The structured program was divided into 19 activity areas as follows:

Balance activities which included having each subject walk forward, backward, and sideways with a crossover step with the following variations: (a) on a four inch wide straight line marked on the floor; (b) on a four inch wide balance beam placed on the floor; (c) on a four inch wide balance beam placed on the floor while shifting a bean bag from hand to hand; (d) on a four inch wide balance beam including a step over a broomstick placed across the center of and one foot above the balance beam; and (e) on a four inch wide balance beam including ducking under a broomstick placed at each subject's eye level above the center of the balance beam.

Ball game activities which included having each subject (a) bounce a large playground ball with both hands; (b) bounce a large playground ball with one hand; (c) roll a large playground ball to another subject; (d) toss a large playground ball with an underhand motion to another subject; (e) pass a large playground ball with both hands to another subject; (f) pass a large playground ball with one hand to another subject; (g) catch a large playground ball when it was first rolled on the floor and then when it was in the air; (h) kick with the preferred foot a large playground ball; and (i) kick with the preferred foot a large playground ball to another subject.

Body Image activities which included having each subject move, while seated in a chair, (a) his legs; (b) his arms; (c) his fingers; (d) his toes; (e) his head; (f) his hands, and (g) his shoulders.

Creative Movements which included having the subject explore (a) different ways of moving through an obstacle course made out of chairs, ladders, hoola hoops, and balance beams; (b) how many ways a large playground ball could be moved across the floor; and (c) how to go through the rungs of a ladder that had been placed on its side.

Direction Activities which included having each subject (a) step in the center of a hoola hoop; (b) stand in the center of a hoola hoop; (c) stand on top of a box; (d) crawl under a table; (e) jump over a four inch high obstacle; (f) stand first on the right and then on the left side of a chair; (g) sit on a chair; (h) go around a chair; (i) stand behind a classmate; (j) stand in front of a classmate; (k) stand first on the right and then the left side of a classmate; (l) lie on his back; (m) turn over from a supine position to a prone position; and (n) go from the prone position to a standing position.

Exercises which included having each subject (a) walk with one foot placed directly in front of the other; (b) sidestep to the right and left; (c) walk with the feet swinging across the midline of the body; (d) march in place with the right hand touching the right knee and the left hand touching the left knee; (e) march in place with the right hand touching the left knee and the left hand touching the right knee; (f) take off on two feet and land on two feet; (g) take off on two feet and land on one foot; (h) hop on both

feet; (i) hop on left foot and stop on both feet; (j) hop on right foot and stop on both feet; (k) jump in place with knees coming to the waist so that the knees could be touched with the hands; and (l) run in a straight line and in a circle.

Games which included having each subject play (a) "Angels in the Snow" which was performed by having each subject lie on his back on the floor with his arms at his sides, and his feet together. The teacher then gave a series of movements to the subjects such as "move your arms over your head;" (b) "Circle Stride Ball" which was performed by having the subjects stand in a circle so that each subject's foot was touching another subject's foot. One subject stood in the center of the circle and tried to kick the ball out of the circle between the legs of another subject. When the ball went between the legs of a subject, he then went to the center and tried to kick the ball out of the circle; (c) "Simon Says" which was performed by having the subjects stand in a straight line in front of the teacher. The teacher then gave a command. When the command was preceded by "Simon Says," the subject performed the command, but when the teacher omitted "Simon Says" and the subject did the activity, the subject sat down; (d) "Teacher Ball" which was performed by having the subjects form a semicircle in front of the teacher. The teacher then tossed a rubber ball approximately the size of a volleyball to the subject on his right, and the subject tossed the ball back to the teacher. The teacher continued tossing the ball to successive subjects; and (e) "Toss Ball" which was performed by having the subjects line up in two rows so that two subjects faced each other across three feet of space with a ball between the two of them. The subjects then tossed the ball back and forth.

Imitation of animals which included having each subject (a) crawl like a seal by pulling himself across the floor with just his arms; (b) hop like a rabbit by first placing his hands beside his head to form ears and then hopping on both feet while wiggling his "ears"; (c) walk like a bear by moving on all fours using the leg and arm on the same side at the same time; (d) walk like an elephant by moving on all fours with his elbows and knees locked while moving; (e) walk like a lame dog by moving on both hands and on one knee while holding the other leg up; and (f) stand like a stork by standing on one leg with the other leg raised and bent so that the sole of the foot was against the knee of the stationary leg and then repeating the exercise with the other leg up.

Ladder activities which included having each subject (a) climb up and down a ladder placed on an incline of 45 degrees; (b) walk across a level ladder with an open space beneath it; (c) crawl under a ladder raised two feet parallel to the floor; (d) walk up and down a ladder placed on an incline of approximately 30 degrees; (e) climb through the ladder rungs without touching them while the ladder was on its side and perpendicular to the floor; and (f) perform balancing activities on the level ladder.

Scooter Board activities which included having each subject (a) sit upright on the scooter board; (b) sit upright on the scooter board and propell himself forward and backward with first his legs and then his arms; (c) lie prone on the scooter board; (d) lie prone on the scooter board and propell himself across the floor by first pulling and then pushing with his arms; (e) lie supine on the scooter board and propell himself across the floor with first his arms and then his legs; and (f) sit upright on the scooter board and propell himself through and around obstacles.

The experimental group's program was presented according to the following schedule.

First week:
Body Image activities (3 minutes); Direction activities (3 minutes); Creative Movements (7 minutes); Exercises (4 minutes); and Games (5 minutes).

Second week:
Exercises (5 minutes); Imitation of Animals (5 minutes); Balance activities (5 minutes); and Games (5 minutes).

Third week:
Exercises (7 minutes); Ladder activities (6 minutes); and Games (7 minutes).

Fourth week:
Exercises (5 minutes), Games (5 minutes); Ladder activities (5 minutes); and Balance activities (5 minutes).

Fifth week:
Scooter Boards (10 minutes) and Ball Games (10 minutes).

The control group participated for 20 minutes each day under the direction of the same

teacher who taught the experimental group. This program was not structured, and it included the creative movements and balance activities previously described.

At the beginning and end of the five week's experimental period, both the experimental and control groups were evaluated with Level I of the *Basic Motor Fitness Test*[7]. This test is designed for the ED and, according to Hilsendager and others[7], it minimizes the effects of mental limitations and lack of understanding of test performance expectations; represents factors of physical performance related to daily living activities; provides a means of comparing normal and handicapped because it is not biased by mental ability; is objectively scored with a minimum of subjective judgment on the part of the testor; and provides guidelines appropriate for the development and evaluation of physical education programs used with ED. Level I items of the Basic Motor Fitness Test used in this study are listed below:

	Pass	Fail	Would not try	Not a max. effort
1. Walk				
2. Creep				
3. Stand-both feet				
4. Stand-right foot				
5. Stand-left foot				
6. Jump-one foot				
7. Jump-both feet				
8. Climb-stairs				
9. Hop-both feet				
10. Hop-right foot				
11. Hop-left foot				
12. Skip				
13. March-in place				
14. Catch				
15. Throw-right hand				
16. Throw-left hand				
17. Kick-right foot				
18. Kick-left foot				
19. Ball-bounce and catch				
20. Total				

The items on Level I were scored by awarding four points for correctly performing the activity, three points for passing the item but in which a maximum effort was not given, two points when the subject performed but not correctly, and one point when the subject would not try to do the activity. The maximum number of points was 76.

All test administrations were performed on an individual basis by independent examiners familiar with the use of the *Basic Motor Fitness Test* for ED. Additionally, the examiners were not provided composite data of the group nor were they told which group had the experimental treatment.

Results

An examination of Tables 1, 2, and 3 shows that the experimental and control groups' mean performances were not significantly different at the beginning of the program (t=0.267), but that these mean performances were significantly different at the end of five weeks with the difference being in favor of the experimental group (F=10:1895). Moreover, these data show that the treatment effect favored neither sex (F=0.3626) and that there was no interaction between sex and treatment (F=0.8849).

TABLE 1

t—Test Results for the Pretest Scores of the Experimental and Control Groups

Group	N	M	SD	DM	t	p
Experimental	19	42.95	11.19	1.05	0.267	ns
Control	19	44.00	12.39			

TABLE 2

Means and Standard Deviations of the Experimental and Control Groups Pretest and Post-test Scores

	Pretest			Post test		
Group	N	M	SD	N	M	SD
Experimental	19	42.95	11.19	19	58.42	2.06
Control	19	44.00	12.39	19	46.89	12.90

TABLE 3

ANOVA for the two Groups' Performances on the Basic Motor Fitness Test

Source	SS	df	MS	F
Treatment	887.6127	1	887.6127	10.1895*
Sex	31.5911	1	31.5911	.3626
Treatment x Sex	77.0864	1	77.9864	.8849
Error	2961.7436	34	87.1101	

*Significant at the .05 level.

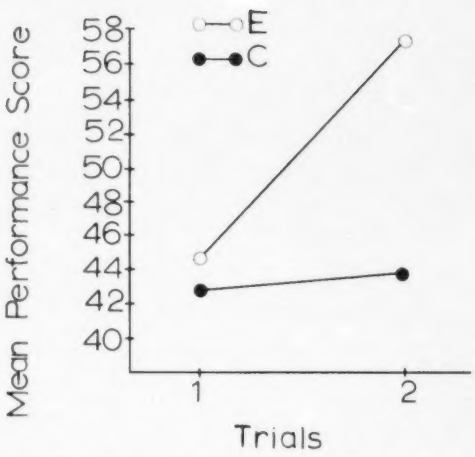

Figure 1. Mean Fitness Performance of Males on Pretest (Trial 1) and Posttest (Trial 2).

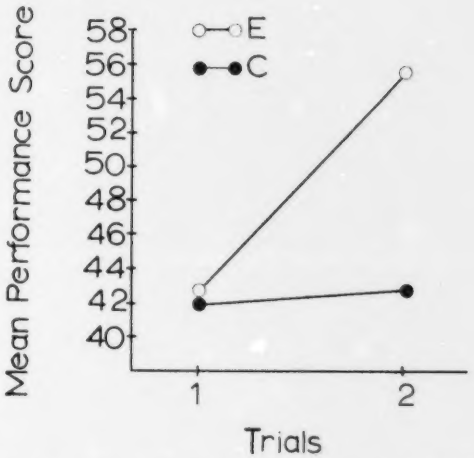

Figure 2. Mean Fitness Perfermance of Females on Pretest (Trial 1) and Posttest (Trial 2).

A further analysis of the data in Table 2 clearly shows that both groups' motor fitness improved from pretest to posttest. These data could be explained by a learning effect from pretest to posttest as well as the possibility the non-structured physical education program may have produced some benefits. However, the magnitude of the difference between the two groups' posttest mean performances (58.42—46.89=11.53) indicates the structured physical education program was an intervening factor more important than a possible learning effect in producing the significance. Therefore, it is possible to conclude that the structured physical education program was effective in improving the motor fitness of these ED children. Additionally, these results show that the structured program was equally effective for both male and female ED (Figures 7 and 2).

Discussion

The findings of this study indicate that ED children can benefit physically from a structured physical education program. Too, the study provides at least one experimentally tested physical education material useful for developing motor fitness of ED children. Moreover, the study results lend credence to those authors[1,3,4,6] who contend that the ED can obtain benefits from physical education. Additionally, the study supports Fait[4] and Poindexter[6] in their belief that the ED's physical education experience should be structured, developmental, and teacher directed for it to produce the greatest gains.

An interesting aspect of this study was the fact that the physical education program was equally effective in improving the motor fitness of both males and females. This finding is important for planning and implementing physical education programs, for if sex does not have to be considered, facility arrangement is made much easier. Furthermore, coeducational classes are more like the ED's regular classroom educational experience. Consequently, the ED is not apt to feel insecure in the physical education classroom since they are still interacting with the same peer group.

Recommendations For Further Study

Since this study showed that the physical skills of ED can be significantly increased through physical education, it might be beneficial to learn whether physical education might also develop other skills of the ED. Specifically, studies should be undertaken to determine if the physical education program utilized for this study will produce the same results when replicated with other ED populations of the same age or older. Also, future studies should experimentally test whether physical education programs can produce significant gains in the ED's social skills as the literature[1,3,6,9] strongly indicates might happen.

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programs for handicapped

Motivation in Physical Education and Recreation For Emotionally Handicapped Children

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How can the teacher or the program director get a child to do what he should do and to learn what he should learn? A tremendous upsurge in research, particularly within the last 20 years, has resulted from increased interest in motivational concepts as explanatory variables in human behavior. There has been an equal increase in written material which purports to solve or to explain the problems of motivation. This article is not an attempt to summarize this material as a whole, but only to sift out that which might apply particularly to the area of motivating emotionally handicapped children to participate in and to learn those activities in physical education and recreation that may be of benefit to them.[1]

Definitions

Motivation has been defined as the urge to push toward a specific goal. Singer states that motivation is a concept invented to describe the psychological state of the organism as it is affected by various impulses.[2] Further, it is caused by specific motives (particular needs or drives), and attainment of the goal will remove a particular need. Thus, a person is motivated when he desires some goal, a goal that will meet his needs or satisfy his interests.

Most educators agree that an individual must be interested in a particular task before effective learning can take place. Motivation is the process by which needs are created within the individual, and this stimulation causes him to seek particular goals to satisfy his needs. Generally, the motivated person is directed toward particular goals, the attainment of which will satisfy him.[3] This directed behavior is almost entirely learned, and learning is a crucial process which underlies not only his actions in seeking a goal but even his choice of goals.[4]

Fait and Singer, as well as others, have proposed the concept of *homeostasis* as one explanation of motivation.[5] Homeostasis is the tendency of the body to take compensatory action to maintain a physiological balance. When there is a failure in homeostasis, the individual must seek a body balance, and the seeking of balance in bodily needs becomes the basis for motivated activity. When considered only from the biological viewpoint, this concept is not broad enough to include all the facets of human motivation.

Related to the concept of homeostasis are *needs* and *drives*. A need is a deprived state or the lack of an essential element, and it may exist either in the realms of the physical, the psychological, or the social.

Cratty defined the term *need* as an internalized deficiency, while the term *drive* involves the idea of *impetus to action*.[6] The term *motive* is a specific condition which contributes to performance and to the general motivational level. Motives are theoretical constructs that purport to explain why and how people engage in certain activities. A drive may be thought of as an initiator of action, a motive refers to the direction the action might take, while a need is a psychological or physiological or even social deficiency which may or may not lead to action. Finally, Cratty summarizes the issue by stating that "motives and drives are factors which underlie and support the general motivational level of the individual by initiating, molding, and sustaining specific action patterns."

It is generally accepted that performance is affected not only by an individual's general level of motivation, but also by some specific motives. The initial reaction of the individual to a task, his readiness to participate, and his actual motor output and even his evaluation of the completed action are influenced by his motives. The individual's evaluation will determine whether or not he will desire to engage in the experience again.

Sources of Motivation

There are three general sources of motives: (1) factors within the task itself, (2) factors within the individual, and (3) factors external to the task and to the individual.[7] It is accepted, of course, that motives in one category may set off a response from motives within another category. Also, a greater degree of participation in a task, or an improved level of performance will accrue from one category of motives with a specific child than may be obtained from other categories of motives. Specialists in various areas of physical education for exceptional children are proponents of differing theories, but it seems a consensus can be gathered.

Factors Within the Task Itself

The novelty of a task has appeal for many children, and this novelty may elicit productive learning and good performance. Examples might be a new activity, unusual colors on the equipment used, or even a different teacher for a specific period of time. However, the introduction of a great number of new activities in a short period of time, garish or bland colors, or the sudden appearance of a stranger among a group of emotionally handicapped children could prove frightening, particularly to those who are most anxious. Although the attention span of emotionally handicapped children is variable, and the teacher must have a large repertoire of useful activities to use when attention begins to wane, the deliberate or unwise presentation of several new activities could be upsetting. It is preferable to individualize the activity program for the children, and to ascertain that the child is becoming comfortable with basic skills at his own particular need level before moving on to more complex skills. Equipment should be painted brightly enough to attract the attention of the children, when feasible, but not be so garish that it frightens them.

Emotionally handicapped children have to learn to trust the teacher with whom they work. Once this feeling of trust has developed, the children may feel comfortable enough in their environment that they can accept the introduction of a new teacher, especially in the presence of their trusted friend. New activities proposed by the new instructor may have greater appeal to them simply because of the novelty of the situation. This may be of great help to a teacher deficient in some particular area, such as rhythmic activities.

The complexity of the task may be another motivating factor within the task itself. A normal child may be challenged to attempt a task because it is difficult, and even in spontaneous play children often make their games more and more complex as they become more adept. These children can tolerate frustration, especially if they have a background of success. Emotionally handicapped children, however, may perceive the task to be too difficult, and therefore tend to withdraw. The teacher must not, however, insult the intelligence of the children by expecting them to participate in activities that are beneath their dignity. It is

essential that all children be given numerous opportunities to experience success; this is especially important for the emotionally handicapped, as they have faced failure compounded with failure. An empathetic teacher can lead children through increasing levels of difficulty until the children can gain a positive view of themselves. When this has been accomplished, complex tasks will be a welcomed challenge, and the recognition of achievement of new goals will be a further reinforcement.

Factors Within the Individual

Psychological needs of individuals can be met when they receive *reinforcement* for successful achievement. The average individual may be able to readily ascertain improved proficiency in an activity; the emotionally handicapped child, on the other hand, may not have the capacity to discern his improvement. In this instance, teachers may be of great benefit by helping the child to be aware of his achievement. The timing of this reinforcement may be very important; it is suggested that in the early stages, the knowledge be given at the completion of the task. As proficiency increases, as the child becomes more secure with his increasing moments of success, and as his own ability to recognize his achievement improves, a delay should be permitted, to allow the child to acknowledge to himself that he has accomplished that which he sought.

The level of aspiration which the individual sets for himself is considered to have a close relationship to motivation. Current research seems to indicate that a person's level of aspiration is not the same for all tasks, but that it is specific for each separate task. Some individuals set levels of aspiration that are too high or for some reason are not attained; others set levels which are approximately equal to their performances; and another group sets levels far below what they could attain. Those children who set levels too high either appear to feel a need to put themselves in a high category or, by appearing to exert great effort, would be given approbation for "a gallant try." Those who set levels that are too low may either be trying to play it safe, or else do not wish to put forth much effort. Those who aspire to realistic goals are persons who have experienced considerable success. Previous successes and failures tend to greatly affect how one selects his level of aspiration.

Emotionally handicapped children are, perhaps, even more inclined to be influenced in their chosen level than other children by the degree of success which they customarily attain.[5] The teacher must be aware that, even unconsciously, he is communicating to the child whether or not he thinks the child will be able to attain the goal (level of aspiration) which the child sets for himself. This communication may be either verbal or nonverbal (through an expression on the face, a touch, or a gesture), but the message is still relayed. This communication may have far-reaching effects upon the child's efforts to achieve.

The knowledge of the results of his efforts is important to the individual, according to many researchers. It is believed that higher levels of performance are reached when the knowledge of results is specific and immediate. This can be provided by charts, by photographs, or by various measurements.

These factors within the individual and factors within the task itself are frequently classified as *intrinsic motivators*. It is generally considered more desirable to rely upon intrinsic reinforcers. Some educators conclude that long-term participation and continued improvement of performance are more likely to occur with intrinsic measures.

Factors External to the Task and to the Individual

Several forms of awards are listed in the category of factors external to the task and to the individual. These factors are also known as *extrinsic motivators*.

Social incentives such as verbal instructions and inducements to "try harder," "do well," and similar terms, are frequently used by teachers. Praise from teachers and classmates, applause, and other forms of social recognition have value, particularly at the early stages of a learning situation. It has been found that occasional rewards of this type are more effective than a continual form of constant reinforcement; such incentives soon lose their effectiveness.[6] Sincerity of the praise is also important.

The use of monetary or symbolic rewards presents some interesting sidelights. For some individuals, symbolic rewards (stars, medals, sweater, certificate) are more important as motivators than money. However, other individuals respond best when rewarded for successful achievement by money; when this is the case, varying the amount of the reward results in a change of performance, with more money producing better performance.

When a teacher is working with a severely handicapped child, candy may be one of the most effective early motivators. A bit of candy given at the first sign of success may be incentive enough to induce the child to continue the activity; this in itself may be a goal—that is, simply to have the child participate. Later, other forms of reinforcement should be utilized, as the development of the child permits.

Singer states that "reward is a more stable and strong influence for desired behavior than punishment." The learner is more apt to perform effectively when he is rewarded positively for correct responses. In spite of this psychological principle, many teachers still rely upon actual punishment or threats of punishment to motivate students to participate or to perform at a higher level. Although there are some instances in which children are compelled to conform due to the anticipation of punishment, it may have a disastrous effect upon others.

Teachers should also be reminded that what motivates them may not motivate students. Although a high degree of structure should be imposed in the early stages of instruction, more freedom should be allowed as the students are able to be comfortable in this environment. With increased freedom should come increased participation by the students in the planning of the program. Students will also indicate throughout the learning program what factors motivate them. Recognizing their own achievements rather than being rewarded by others is sometimes a surprising outgrowth of the learning situation.

The emotionally handicapped can be too highly motivated. This may cause the child to "freeze" and be unable to perform even at a level quite within his usual capacity. The teacher must exercise care in giving or in permitting others to give more stimulation than the individual can handle.

Suggestions for Teaching Physical Education Classes

Since successful performance and effective learning are dependent upon the motivation of the individuals and the groups involved, it is important that all persons concerned with programs of physical education and recreation have a working knowledge of motivation and that they know how to apply each of the factors discussed here.

It is suggested that the environment be set before the children arrive for an activity period. A minimum of instructions should be given at first, for many of the children will be unable to remain quiet to listen until they have engaged in some rather vigorous activity for a brief period of time. However, extended periods of vigorous activity by the hyperactive have a tendency to deplete the energy of the child to such an extent that classroom activities which follow cannot be given proper attention by the child. Also, a

child who is too distracted to attend to the activities presented in the physical education class may benefit most from a few minutes of quietness, in order that he may gain self-control.

Each child should have a piece of equipment to use throughout the period, rather than having to stand in line and wait his turn. By giving a task to each child, the teacher will be free to move among the children, giving whatever assistance is needed. For the more severely handicapped, there should be at least an aide to work on a one-to-one basis with each child. The teacher should change the stimulus often—for example, using hoops, wands, and tires as well as ropes in teaching rope-jumping skills.

One of the most important roles of the teacher is to help the children set realistic goals for themselves; this must be based upon previous performances. The teacher must also guide the children in the amount and kind of competition in which they should engage.[10]

If it is necessary to repeat instructions to the child, this must be done in a pleasant manner and in such a way as to avoid indications of annoyance. The child must be allowed to perform in his own optimal style, which gives him a sense of dignity.

Suggestions for Conducting Recreational Programs

Providing for the needs of emotionally handicapped children in a recreational program has some similarities to that of teaching physical education skills. There are many differences, however. Recreational activities cover a much broader spectrum than can be found in physical education. In addition, participation in a truly recreational setting is voluntary. This in itself poses some problems, for many handicapped youngsters avoid others, particularly if their skill levels in various activities are rather low. These individuals have known repeated failure and frustration and, in general, they have a poor self-image. Their lack of self-confidence is fostered by rejection by their peers as well as by some adults. It is difficult, therefore, to induce them to become involved in programs of a recreational nature.

When a director of a recreational program is able to attract one or more handicapped children into the program, he should encourage the participants to give suggestions for the program and later to even help in planning the program. Remember, what motivates an adult may not motivate children and

particularly handicapped children. The organization must be informal, flexible, and perhaps even unorthodox. The participants within the program should be allowed to encourage and assist in recruiting others into the program; then they should act as a channel of communication between the program leader and the persons to be involved in the program.

The program leaders, along with the participants, must constantly assess the interest in group participation of the individuals for follow-up and future planning. Finally, leaders should plan and provide for dynamic innovations and readjustments within the structure of programs and services to meet the needs of the participants.[11]

The Teacher or Director

"A good teacher is the single most important factor to be considered in providing for a quality program. The superior teacher is able to motivate students in many ways."[12] Teachers and program leaders differ in experiences and personalities, and they differ in their methods of working with students and participants. Adults must be comfortable in the environment in which they operate and with the methods that they utilize in their programs. One method may work well with one group, and it may result in disappointment with another group. One individual may accomplish much with one group and be unsuccessful with another group. But the teacher's or director's enthusiasm and interest in the children are essential.

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[1] In addition to the items included in the footnotes, the reader is directed to the publications listed at the end of this article under the heading "Further Reading."

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Behavior Modification in a Summer Camp Setting

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The Englishton Park Academic Remediation and Training Center for Children was first organized in 1970 as a summer outdoor education center for behaviorally disoriented children whose behavior patterns were preventing their normal progress in school. The program was set up as a residential short-term camp so that children would find the program appealing and enjoyable while at the same time offering the program a high degree of environmental control potential.

The goals of the program were: (1) to significantly alter specific behaviors which seemed to be interfering with effective learning in the classroom situation; (2) to improve academic skills and knowledge since deficiencies in this area only aggravated the problem behavior through chronic frustration; (3) to improve attitudes toward teachers and academic material since this was usually highly negative; and (4) to improve interpersonal relationship skills since most of the children had great difficulties in getting along with others.

The program was staffed by a child psychologist, an outdoor education and recreation specialist, an academic remediation specialist, a research technician, and eight college-trainee "teacher-therapists" (four male and four female). One male and one female teacher-therapist were assigned to each group of six campers so as to effect a family-type situation and to teach each child how to better relate with both male and female teachers. The pair of teachers assigned to each group were with that group 24 hours every day for the duration of the camp. A 10-day intensive training workshop on program objectives and techniques was conducted prior to the beginning of the camp program.

Only 24 children were admitted to each camping session. Initially these sessions were limited to boys aged 8 to 11 and boys aged 11 to 14 since most referrals were in this category, but we have run sessions for boys and girls aged 6 to 8 as well. Over the past three years, over 250 children have experienced this camping program. To obtain the type of post-program follow-up efforts we have found necessary to sustain behavioral and academic progress made in the camping program, only children who were already involved in various remedial programs of community and school agencies were selected. Children selected were generally characterized by: (1) average or above intelligence ranges; (2) extremely negative attitudes toward teachers, schools, and academic subject matters; (3) behavior disorders which were markedly interfering with normal classroom learning; (4) academic performance at the failing or near failing level; (5) physical fitness which allowed them to participate in most outdoor camping activities, even though this excluded primarily nonambulatory children; and (6) a concerned social or school agency which would assume responsibility for the child's continuing progress once he left the program as well as parental cooperation where that was possible.

Behavior Modification

To meet the first program goal, significant alteration of specific problem behavior, a system based on behavior modification theory was instilled in all phases of the camping program. An individualized behavior prescription was made for each child prior to his camp arrival based on intensive study of that child's school and home background, which specified precisely how the pair of teacher-therapists were to react in all their dealing with that particular child's behavior. This included the deliberate planned manipulation of six levels of positive reinforcements and two levels of negative reinforcements.

The six positive reinforcements were: (1) verbal praise; (2) gestures of physical affection, such as hugging, holding, etc.; (3) immediate issuance of candy pellets; (4) issuance of gummed stars placed on name badges, eight of which could be traded for candy bars, soda pop, and ice cream at a camp store (and which constituted the only way to obtain these treats); (5) award of certificates of merit at public ceremonies; and (6) earning certain highly coveted camping activities, such as evening swims, overnight campouts, and cooking-out privileges. The two negative reinforcements used were: (1) complete, short-term neglect on the part of the teacher-therapists and (2) a five-minute withdrawal from a coveted camp activity.

Great emphasis was placed on positive reinforcement for self-control of behavior, e.g., telling a highly verbal child who is always talking that if he doesn't talk out of turn for the next 30 minutes he will receive a star which will accumulate toward a candy bar or conversely telling an extremely shy child that if he does participate in a group discussion he will get a star.

All levels of reinforcement (positive and negative) were used with every child throughout the program under the individualized directives of his behavior prescription, which emphasized what specific behaviors to concentrate on and what behaviors to ignore. In order to effectively implement this part of the program, every teacher-therapist had to carry a bag containing the behavior prescription for each child in his group for frequent reference, candy pellets, gummed stars, and extra name badges, and several timers for accurate timing of withdrawal of children from coveted activities. Sometimes children would be rewarded for ignoring the attention-getting antics of other children, e.g., giving every child in a group a candy pellet immediately for ignoring the one child who is swearing or making faces was found to be an excellent way to maintain control of the group while making the one child's attention-getting devices ineffectual.

Consistent application of these procedures throughout the program worked so well that we experienced little difficulty with control of the disruptive behavior which normally characterized these children. Candy pellets and certificates were given less and less frequently as rewards as each session progressed so as to prepare the child for his exit from the program into the "real world" where these types of reinforcements are generally not used. This decrease in the frequency of administering concrete, tangible rewards did not lead to a decrease in self-control of inappropriate behavior, indicating that once new patterns of appropriate behavior are established they tend to be self-rewarding through improvement in interpersonal relationships, faster acquisition of skills, considerably less frustration with a world that doesn't understand them, and, in general, just having more fun with others.

Academic Remediation

To meet the second program goal, improving academic skills and knowledge, each child was exposed to three different types of academic learning experiences daily.

The first, the "individual learning module," was designed around typical academic subject matter taught in regular school but was taught in such a manner that a child did not need to obtain the help of others (or get others to help him) in order to succeed in this task. To make the material interesting and to increase motivation toward academic tasks, all of this material was integrated into normal outdoor camping activities. Mathematics was taught in swimming; science in nature study; spelling and geography in arts and crafts; and language skills in campcrafts. Accomplishing academic goals at their own level became necessary to continue the coveted camping activity. For example, continuing to enjoy the swimming sessions was contingent upon periodically solving mathematics problems which were built right into the swimming activity. Failure to solve a problem at their own level of competency led to a five-minute withdrawal from swimming while others in the group, who did solve problems successfully, continued their swim. Every child was exposed to all four subject matter areas and all four camping activity areas every morning.

In the afternoon, the "unit participation learning module" was introduced. These four-hour group activities were designed to teach cooperation and group participation, again around highly coveted camping activities. Every group of six selected some activity they would like to do, such as going overnight camping or building a treehouse, and then were told what would be involved in meeting that goal: clearing a forest area or chopping up logs, etc. Every person was expected to do his part in meeting the goal. Failure to cooperate with the group in meeting this goal led to holding the entire project in abeyance until one member decided to cooperate, or abandonment of the entire project, thus generating considerable peer pressures toward the uncooperative at times. In addition, the length of the project instilled long-term behavioral goals and payoffs into the program.

Every child in the afternoon got two breaks from his work—the first for an intensive private tutoring session by a trained specialist in the area of his greatest academic weakness and the second for a private counseling session by a trained school counselor which focused on that child's personal adjustment problems in school. The tutor and counselor held their sessions right in the woods with the children so that no time was lost in transporting children back and forth from their chosen location. By rotating both tutoring and counseling sessions among the group of six, every child was exposed to both experiences every afternoon on a private basis.

In the evening, every child was exposed to competitive learning, but within the security of his group. These "group activity learning modules" were designed around competitive group sports activities such as Junior Olympics or touch football. However, acquisition of new academic skills was necessary to win, in that spelling bees and other academic games were frequently inte-

gated into the sporting events themselves.

At the end of each day, every child had been exposed to individual, cooperative, and competitive types of learning in addition to individual academic tutoring and counseling sessions. The latter two experiences focused on techniques and problems of the particular child while the former group experiences emphasized acquisition of academic knowledge appropriate for the grade level.

Interpersonal Relationships

Many of the children came from broken homes and suffered from very poor peer relationships. Every effort was made to improve the children's skills in relating with others, primarily through immediate reinforcement of appropriate actions on their part by the teacher-therapists and through strong emphasis on imitating the same-sex teacher-therapist by his or her role as a "model." To accelerate these identification processes, certain activities were reserved for boys and the male teacher (such as showering, going bare chested, playing football, etc.) while other activities were exclusive to girls and the female teacher (pajama parties, making cookies, wearing cosmetics, etc.). It was felt that these occasional segregated activities helped establish a warmer interpersonal relationship with the same-sex teacher in addition to teaching feelings of adequacy in their sex-role, a problem many of the children were experiencing.

Evaluation

An evaluation study was done on the 45 boys in the program in 1970 once they were back in their regular school and home situations. It was found that all 45 boys liked the camp experience very much and wanted to return the next summer. Over half of them (51%) were performing significantly better in school from both a behavioral and academic standpoint according to teacher reports and grades received. Eighty-seven percent of the parents reported that the camping program had most definitely produced positive change in their children which helped them considerably in school work and in getting along with others.

In 1971, this study was repeated on another 100 boys in the program that summer. Eighty-nine percent of the children reported that they were enjoying school more and doing better in school work. Grades received at the end of the first term validated their claim: the vast majority were obtaining significantly higher grades while being involved in significantly few disciplinary actions.

In 1972, an extensive battery of tests designed to measure a variety of attitudes toward schools, teachers, academic subject matters, and peer relationships was administered to 47 randomly selected boys in the program that year on the second and last days of the camping program. The differences between their scores were computed to ascertain any statistically significant changes in these areas as revealed by this type of test. It was found that attitudes concerning school life, teachers, and academic subject matter, although highly negative in the initial testing, improved remarkably. Their estimate of their own academic abilities also improved significantly, as did their self-concept of their own likeableness as a person and their willingness to respond to authority figures such as teachers. The need to retaliate against others for perceived slights or threats showed a significant decrease as did their willingness to become subservient to people's demands which they evaluated as being unfair or insincere, such as they sometimes encountered in their peer relationships. No significant changes were observed in attitudes toward home situations or toward their ability to manipulate their environment.

Also in 1972, a "direct on-task observation system" of recording attention-span was introduced into the morning activities at the camp in an attempt to objectively measure changes in this area of behavior. According to findings with 112 boys and girls in the program, attention-span (defined as keeping your eyes on the teacher during instructions and doing the assigned task without distractions during the time assigned for performing the task) increased on the average from 73 to 90% during the ten days of the camp sessions, regardless of the age group in the program at that time.

Overall, the program seems to meet all of its objectives remarkably well considering the short-term camping sessions involved. In order to maintain these improvements on a long-term basis, however, we have found that parents, teachers, and others involved with the child must follow some of the techniques used in the camping program as modified to their particular situations. Failure to do so leads to a gradual retreat into former inappropriate behavioral patterns. For that reason, we currently offer training workshops for parents and teachers while the child is in the camping program. To date, these training sessions have paid off in that post-camp parent and teacher involvement in the child's progress is much higher and behavior gains are being maintained on a long-term basis.

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PERCEPTUAL–MOTOR TRAINING AND THE AUTISTIC CHILD

RICHARD MOSHER**

The search for innovative teaching techniques for children who do not learn in the conventional manner (e.g. learning disabled, autistic, and aphasic) has placed a new emphasis on perceptual-motor training. In fact, the aims and objectives of the programs are presently heavily weighted toward the enhancement of social and cognitive functioning, as well as maintaining the more traditional objectives associated with increased motor control.

In a previous article, I noted that there has been only limited research evidence relating academic and cognitive gains to perceptual-motor training. However, research studies do indicate vast improvements in fine and gross motor function as a result of participation in these programs (Mosher, 1974). Other benefits which have justifiably been attributed to perceptual-motor training programs include increased visual-perceptual skills, attention span, and socialization skills.

Seefeldt (1973) has suggested that perceptual-motor programs may serve either a "precursory" or an "adjunctive" function with respect to the learning of other skills. Movement experiences, and specifically, perceptual-motor programs, have generally occupied a precursory position with respect to the development of children. That is, motor skills of early childhood supposedly provide the basis for later development of social, cognitive and motor skills. This approach is exemplified in the writings of Kephart:

> Learning disabilities may be viewed in terms of difficulties in this developmental sequence. When such difficulties occur, then there are gaps in the sequence which will affect all future learning either by limiting or distorting it. (1965, p. 18)

Environment for Learning

On the other hand, the adjunctive role which movement plays in achieving other objectives is based on the premise that the learning of motor skills provides a favorable environment in which the child can acquire the elements which are prerequisite to cognitive functioning.

> The concrete nature of movement provides an immediate indication of success or failure. The flexibility of motor tasks enables the instructor to set the goals so that success is possible and failure is improbable. The successful accomplishment of a task provides an intrinsic reward, but it also gives the teacher an opportunity to respond with approval to the actions of the child. This series of events, which includes the establishment of a "success-syndrome", the positive relationship between instructor and student, the increased ability of the student to attend to a task, and the direct association between listening to instructions and successful completion of a task are all part of the usual academic routine. It seems logical to assume that these traits will transfer to other learning environments. (Seefeldt, 1973, p. 3)

It is this adjunctive, or environment for learning, function of perceptual-motor training that we have stressed in developing a model perceptual-motor program for autistic children at the University of Ottawa. Since no existing programs were found in the literature, we decided to develop our own summer perceptual-motor experience.* In addition we felt that it was important that autistic children should be given the same summer opportunities — those of cognitive, motor and recreational stimulation — as the average child often receives. Thus, autistic children in this area now receive a five hour per day, five day per week, summer experience. The following consists of eight stations, complete with example activities, followed by a rationale for that particular station. It is not intended that each child will spend the same amount of time, or even attend, each and every station. The stations, and the time spent at each station, are determined by the needs and characteristics of the individual children.

Station 1: Sequential Skills I

Physical educators have identified the natural progression of most motor skills (Corbin, 1973; Wickstrom, 1970; Espenschade and Eckert, 1967). This allows us to initiate sequential skill training at whatever stage in the developmental sequence the child happens to be functioning. The sequential skills of creeping, crawling, walking, running, hopping, skipping and jumping are stressed at this station. The objective is to move the children along the skill continuum toward improved maturity at performing particular movement activities, i.e. jumping.

Rationale for Station 1

Wing (1972), among others, has noted that nearly all autistic children, whether they appear to be graceful or awkward, are immature in the way they move. Improper arm positioning and movement, when run-

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ning, is one example of an improper pattern in a basic developmental sequence. Similar immature movement patterns have been noted in other skills, particularly skipping and jumping. Aside from the fact that a proper motor base is thought by many to underlie later cognitive functioning (Piaget, 1971; Getman, 1965; Kephart, 1960), mature motor patterns are necessary for involvement in higher level games, which many autistic children are ready to experience.

Station 2: Sequential Skills II

Emphasis here is again placed on moving the child along the path to maturity, with respect to fundamental motor patterns. At this station, however, the developmental skills of catching, throwing, kicking and striking are emphasized. For example, the skill of "catching" can be broken down into a number of distinctly different developmental stages (Wickstrom, 1970). Each child's level or stage of development is identified and the instructors attempt to progress from this point, using balls of varying sizes and shapes, and trajectories and velocities of varying difficulties.

Rationale for Station 2

The rationale for station two is essentially that stated for station one. Progression toward mature movement patterns, especially in those skills which are required for peer interaction, will hopefully assist in the development of a more positive self-concept within the child. An increase in self esteem should in turn increase the desire for socialization within the autistic child.

Station 3: Body Image Development

Body image is essentially the individual's concept of his/her body and its possibilities for movement and performance. The activities designed to enhance body image have been developed to provide answers to the following four major questions related to the child's body: What are the parts? What can they do? How do you make them do it? What space do they occupy while doing it? (Charey and Kephart, 1968). A selection of the activities included at this station are as follows:

a) identification of specific body parts, such as the elbow or knee, etc.
b) touching body parts, eyes closed.
c) touching body parts to objects in the surrounding environment; i.e. elbow, to table, knee to ball.
d) touching body parts to body parts, self and others; i.e. ear to shoulder, wrist to knee.
e) identification and movement of particular body parts when lying prone or supine;; i.e. on back, left heel to right knee; on stomach, left wrist to back of left knee.
f) body alphabet; making letters such as P, U, T, and S with one's body.
g) drawing shapes with armsand legs; ex: "draw a circle with your right leg".

Rationale for Station 3

An individual with an adequate body image not only understands the physical structure of his/her body, but also the movements and functions of the various parts of the body. It is well known that a major deficit of autistic children is the inability to interpret the position of the body and its parts in relation to each other and to other objects. Ruttenberg (1971) states that the autistic child is distorted or lacking in body image, which probably best summarizes the existing problem in this area. Since "body image is important in the development of the child's self-concept as well as in coordination" (Capon, 1974), this station is considered an important one in the total program.

Station 4: Fine Motor Skills — Manual Dexterity

Activities involving designs, puzzles, block assemblies, Purdue Pegboards, Minnesota Rate of Manipulation Boards, Crawford Small Parts tests and meccano sets, will be utilized at Station 4.

Rationale for Station 4

Activities of this nature are related to the right hemisphere of the brain, which appears to be much less affected than the left hemisphere, at least for the majority of autistic children. Thus, many of the children can cope easily and, in fact, enjoy activities of this nature. This station is emphasized a great deal in the early stages of the program, with the objective of developing a positive attitude within each child and thus, hopefully, a willingness to attempt other stations where success is not readily apparent.

Station 5: Vestibular Stimulation

Activities have been chosen which will bombard the vestibular system with stimuli. Included in the activities are trampoline exercises, spinning net hammocks, balance activities, tumbling stunts, scooter boards, therapy balls and rotating discs. Further information regarding specific types of activities which may be used, may be found in Ayres (1974) *Sensory Integration and Learning Disorders*.

Rationale for Station 5

Autistic children are often found whirling themselves around, rocking back and forth, clapping their hands, and rolling their heads from side to side. Bender (1956) has suggested that many of these behaviors indicate that autistic children are actively seeking out vestibular and proprioceptive stimulation. However, in view of the fact that autistic children exhibit both hypo-reactivity and hyper-activity (i.e. a lack of responsiveness or an exaggerated reaction) to sensory stimuli, Ornitz (1974) suggests that the abnormal motor behavior of the autistic child is related to the faulty modulation of sensory input. Furthermore, the

latter author states that:

> Review of the neurophysiology of the vestibular system reveals that the vestibular nuclei modulate motor output at the time of sensory input and sensory input at the time of motor output. It is sugested that a dysfunction of the central connections of the vestibular system with the cerebellum and the brain stem may be responsible for the strange sensorimotor behavior observed in autistic children . . . (Ornitz, 1974, p. 197).

Ayres (1974) also makes extensive use of activities which stimulate the vestibular system, although the majority of her work is with learning disabled children at the present time.

Station 6: Swimming

Approximately 40-50 minutes per day are devoted to water activities, both instructional and recreational. A similar approach is taken in teaching water skills to the autistic child as one would take in instructing the normally-developing child. However, more extensive use is made of equipment, such as kick boards, swim "floaties", rubber balls and inner tubes.

Rationale for Station 6

Most autistic children either enjoy, or can learn to enjoy, water activities. Thus, the first objective of our swim program is "fun". Once again, this station provides excellent opportunities for socialization, body image and self-concept development. Secondly, water activities are important in that accomplishments in this area will allow the autistic child to participate in regular family summer activities. Avedon (1975) has strongly stressed the need for activities which allow the child a greater range of interaction with family and peers.

Station 7: Cognitive Skills

Two aspects, the development of language and the development of concepts are dealt with at this station. While language development is carried out in the traditional manner, by a trained teacher, we incorporate the motor medium in teaching concepts. Humphrey's (1965) method is utilized, whereby specific cognitive objectives are incorporated into game situations. For example, number and word concepts (high-low etc.) are illustrated within relay and stunt situations, after which these same concepts are reinforced in a traditional teaching manner.

Rationale for Station 7

Many teachers and parents note that severe regression in cognitive skills takes place over the summer months. This station is simply an attempt to keep the child exposed to appropriate cognitive stimulation. The individual child objectives are formulated on the basis of his progress the previous winter. Finally, the use of the motor medium is justified in that it attacks the problem through the child's strength — his/her motor skills, as opposed to his/her weakness — the language and cognition area.

Station 8: Arts and Crafts

Arts and craft activities comprise the final station. Cutting, pasting, puppets, paper maché, etc. are utilized here.

Rationale for Station 8

As the reader has probably noted, many of the children will be unable to function, especially in the early days of the program, at many of the stations listed above. This station is thus instituted to provide a location for the development of social and fine motor skills, as well as a "tapering off" situation for those involved with many of the large muscle activities.

As the reader is probably by now aware, no existing perceptual-motor program for autistic children has been located, by this author at least, in the available literature. It is encouraging, however, that a number of approaches based on scientifically validated principles, are now available for those working toward a more innovative program of instruction for autistic children. The preceding has been an attempt to apply these principles and techniques which have been isolated by both practitioners and researchers, toward a perceptual-motor training program for this special group of children.

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programs for handicapped

Physical Education—Recreation Methodology

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The task of improving behavior deficiencies common to mentally and emotionally handicapped children has many facets, including methodology or ways and means of controlling learning experiences. When teaching these children it is not desirable to adhere mechanically to standardized approaches but rather to focus on the uniqueness, complexity, and developmental diversity of each child. Experience indicates that methods appropriate for mentally and emotionally handicapped children are simple and open-ended. They reflect teacher flexibility, adaptability, innovativeness, and creativity and have a highly personal, artistic quality which combines sound judgment, good taste, and individual intuition.

Teachers of these children must have a solid background and preparation in physical education and recreation; knowledge of mentally and emotionally handicapped children and the phenomena that surround their condition; personal qualities such as patience, empathy, a sense of humor, and an appreciative commitment to the mentally and emotionally handicapped as individuals of worth and dignity who can progress, achieve, and succeed; and personal and professional maturity developed through experience.

Behavioral Characteristics

Clinical investigators have found that mentally and emotionally handicapped children consistently possess certain characteristics.

Physical — hyperactive, distractable, poor coordination, lack of inhibition.

Social — lack of sociability, difficulty in learning social and cultural norms, poor judgment, and impulsiveness.

Perceptual — uneven patterns of learning, language dysfunction, concrete rather than abstract minded, and disturbances in concept formation.

The behavioral characteristics displayed by mentally and emotionally handicapped children are varied and exist in degree. Often these traits are symptomatic, functional, and subject to great change. Thus, any classification of children as mentally and/or emotionally handicapped should acknowledge the existence of various subgroups within the overall group designation. Accordingly, it is advisable to focus on handicapped children as individuals and to use a generalized classification or label only as a frame of reference—not as a stereotype—to make it possible to adapt methodology and course content to meet individual needs.

The following suggestions are based on research findings and experiences of teachers and clinicians. Hopefully, other individuals will find these suggestions serviceable in their efforts to help children modify their behavior in more desirable ways.

Teacher-Child Interpersonal Relationships

1. Establish effective interpersonal relationships with each child in order to influence student behavior; how well the teacher does this will determine his ability to influence the child.

2. Provide direct and specific training approaches to *force* their attention, a degree of restraint, and a dominant figure to whom they can relate.

3. Use a somewhat formal *command style* which is generally more effective than informal, permissive approaches. Whenever permissive approaches are used they should be in terms of the child's ability to understand and absorb opportunities for freedom and choice.

4. Establish and maintain a command position of *respectful dominance*. Some techniques to accomplish a command position include: (a) deal with each child as his behavior warrants; (b) call each child by name; (c) use the voice with appropriate firmness and inflection; (d) use facial expressions to indicate acceptance or rejection of behavior; (e) assume a standing posture; (f) make direct eye contact with each child; (g) grasp the child by the arm or hand and apply firm pressure; and (i) keep the command position intact while following encounters through to their completion. View the command style pragmatically and not in terms of fear, punitive approaches, or corporal punishment.

Structured Teaching Situations

1. Structure instruction and the environment to facilitate learning and to minimize failure-frustration experiences. Structure implies (a) a command position; (b) dependable and consistent management of discipline; (c) clear communications regarding acceptable behavior; (d) orderly procedures to help children meet expectations; (e) activities executed according to plan; and (f) a relatively simple and distraction free environment.

2. Strive to help each child develop his unique personality and his capacity for independent action.

Grouping

1. Group students in ways which permit safe and equitable participation.

2. Base groupings on teacher-pupil ratios: (a) *large* groups of 12 to 15 children; (b) *small* groups of three or four children; and (c) *one-to-one* situations.

3. Organize large groups into smaller units as situations dictate. Student aides or leaders can be valuable assistants to master teachers in these situations. In large groups other children may distract mentally and emotionally handicapped children and complicate the environment for them. When this is the case, teachers should manipulate the environment in appropriate ways.

4. Use of one-to-one situations requires considerable teacher ingenuity when he is responsible for large or small groups of children, and they are valuable for establishing effective interpersonal relationships with students and for helping them develop and maintain interest in various activities. If the situation overwhelms the child, poses a threat to his security, distracts his focus of attention, or interferes with his learning he initially may be better off in a group where he can feel comfortable by maintaining some anonymity.

5. Group, if appropriate, on basis of (a) mental age; (b) degree of socialization and ability of the child to cooperate and function in a group situation; (c) learning type, perceptual characteristics, or differential ability of the child to learn by touch, feel, hearing, or sight; (d) level of maturation; (e) physiological level; or (f) interests, experience, and overall abilities.

6. Encourage mentally and emotionally handicapped children to participate with normal children on the basis of their ability in a particular phase of the program or in certain activities.

Learning Types

1. Classify children according to learning type and their ability to process sensory information—touch-tactual, feel-kinesthetic, hearing-auditory, and sight-visual. A child may be limited in his ability to learn when verbal explanations are used to convey to him what he is to do. Mentally and emotion-

ally handicapped children are generally considered more nonverbal than verbal so that demonstrations or visual presentations of information may be very effective with them.

2. Use manual-guidance as a concrete and effective means of dispensing information. However, the *feel* or kinesthetic approach may be confusing if it restricts the child's natural movement style.

3. Encourage children to perform with barefeet and minimal dress — touch-tactual approach—to allow for more direct contact with environmental elements; this seems to have favorable effects upon motor performance.

4. Use with caution simultaneous incorporation of various types of sensory information — multisensory approaches —in efforts to intensify the stimulating condition and to favorably effect learning. This is especially important to consider since mentally and emotionally handicapped children have difficulty in organizing sensory information. Concentrate upon KISS—keep it simple systems!

Motivation

1. Reduce motivation problems by avoiding tasks which are (a) too demanding physiologically; (b) too complex in their psychological and neuromotor components; (c) not relevant to the child; (d) uninteresting or too abstract; (e) not designed to provide opportunities for *active* participation; (f) threatening to the individual's security; or (g) not designed to provide immediate reinforcement.

2. Increase motivation by (a) selecting activities which are consistent with the child's intellectual and physiological levels and offer him realistic challenges; (b) using tasks which have an inherent element of fun or otherwise carry their own rewards including success and satisfaction; (c) changing tasks frequently as the child's interest indicates the need; (d) presenting and modifying tasks so that variety and novelty are included; (e) emphasizing the usefulness of tasks; and (f) providing appropriate competitive elements.

3. Consider the following suggestions relative to competitive elements in the program: (a) moderate appropriately since mentally and emotionally handicapped children do not appear to benefit as much as *normal* children from activities which are highly competitive; (b) relate competition to the child himself more in terms of his own improvement than to others or objective standards; (c) extend to the child opportunities to compete against others and standards within the limits of his security as he develops more stability and resilience; and (d) help the child learn to deal with failure with planned support from the teacher to prepare him for future demands of life.

4. Break the viscious *failure-frustration-retreat* cycle common to most mentally and emotionally handicapped children through repeated success-satisfaction experiences. These experiences tend to raise one's level of aspiration, enhance the self-image, and develop self-confidence.

5. Increase the child's ability to lend himself to a task by skillfully manipulating the environment and by improving those attributes of the child which make him vulnerable to failure.

6. Recognize that conventional methods of motivation, such as praise and encouragement, may not be as effective in getting these children to try activities as tangible rewards. The pragmatic approach to motivation secures the child's initial participation which, if satisfactory, is likely to evoke participation for less tangible and more meaningful reasons.

7. Use praise and encouragement in the form of gestures and verbal comment generously but not indiscriminately.

8. Deprive a child of something he is known to value as an effective way to compel action.

9. Realize that peer group influence is a powerful motivator when the developmental age of mentally and emotionally handicapped children approximates the age of *normal* young children. Academic ability, motor proficiency, and social behavior are all involved in establishing peer group relationships, with the latter apparently the most important.

Progressions

1. Order physical education-recreation learning experiences as follows: (a) arrange activities according to the child's normal pattern of development; (b) select activities according to the child's level of readiness; (c) reduce activities to the smallest parts with which the child can cope; and (d) present activities in sequential progressions with small increments of challenge.

2. Emphasize relatively simple motor acts to establish a developmental cycle which stresses participation and success. This approach predicates success and mastery of lower levels before moving to more advanced and complicated activities.

The suggestions as grouped form guidelines for effective instruction of mentally and emotionally handicapped children. Success in teaching these children is based on one's ability to individuate and apply these suggestions in various situations and for each child.

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FILMS

Cast No Shadow (16mm, sound, color, 27 minutes). Professional Arts, Inc., Box 8484, Universal City, California.

This unique and dramatic film vividly depicts a wide range of recreation activities for severely and profoundly mentally retarded, physically handicapped, multihandicapped, and emotionally distrubed children, teens, and adults at the Recreation Center for the Handicapped (San Francisco, California). Emphasis is on values of recreation and its effects upon lives of handicapped persons as an integral part of their total learning experiences and social development. Equally, it is about handicapped individuals, ages 2 to 85, as people. Enthusiasm, satisfaction, and enjoyment are shown on their faces as they participate in a variety of activities from snow skiing at Squaw Valley's Olympic Village to wheelchair surfing in the Pacific Ocean.

Jennifer Is A Lady (16mm, sound, color, 32 minutes). Film Library, New York University, 26 Washington Place, New York, New York 10003.

Pre-school children with severe communication problems, learning disabilities, and social problems who are usually classified as autistic are shown taking part in a special program designed for them. A great deal of emphasis is placed upon activities and approaches to get the child's attention, often simply to make eye contact. Many of the activities are designed to promote body identification as a means of becoming aware of ones self and others. Singing games, rhythmic and musical activities are important in development of language; comprehension is stressed before speech. Difficulty in teaching the simplest of concepts is evident through reactions of these children to their teachers. A great deal of structure is crucial to the success of these programs. Teacher inventiveness and innovation in developing approaches that are appealing to and capable of breaking through to the child are vital. These children should not be excluded from school--they are educable and can learn. If they are to function effectively in society, they must be identifield early and programs started upon such identification.

Listen to the Dance (16mm, sound, black and white, 10 minutes). Perennial Education, Inc., 1825 Willow Road, P.O. Box 235, Northfield, Illinois 60093. Purchase $110; Rental, $11.00.

This film depicts a group of about 20 men and women who weekly attend a dance movement therapy session in a mental health day treatment center for people who are experiencing emotional difficulties. Certain dance therapy techniques are shown successfully used to help participants learn to interact, communicate, and relate to each other and the outside world. Interaction between therapist and clients, and close cooperation between psychotherapist and dance therapist is stressed. Ideas explored in the film include exploring onesself as participants learn about and accept themselves through movement; ways we move through life as understanding of ways each appears to himself and others through movement; exploring the world around us through the game of invisible energy designed to inspire participants to be more creative, explorative, and expansive with their movements;

and moving together as participants share the fun of relating to one another and their environments through creative movement. Emphasis throughout the film is upon the dance therapy progress in terms of what is being done, how it is done, and changes that occur in participants because of and th. ugh the experiences.

Looking for Me (16mm, sound, black/white, 29 minutes). New York University Film Library, 26 Washington Place, New York, New York 10003; University of California, Extension Medical Center, Berkeley, California 94720.

Use of dance and movement as therapeutic tools is explained by a dance therapist reporting on a research project in which she investigated therapeutic benefits of patterned movement in her work with normal preschoolers, emotionally disturbed children, autistic children, and adult teachers. Gives particular emphasis and consideration to movement as an alternative to traditional approaches for reaching children with specific problems. Shows personal and individual growth as children become more conscious and aware of themselves and their bodies, share experiences with others, and exhibit self-discipline through greater confidence and self-assurance. Places special emphasis on importance of recognizing ways in which children communicate through body language. Stresses activities and expressions that are meaningful to the child. Shows dance and movement to be effective methods of dealing with children so they can learn to feel comfortable with themselves with as little conflict as possible between body and emotions. Body language is felt to be the basis for real communication and the first step in total integration as well as verbal language. Especially for those for whom growing is a painful experience, various body movements become important activities and experiences in the long developmental journey from infancy through childhood to adulthood.

A Program of Developmental Motor Activities (16mm, sound, color, 22 minutes). Patricia Johnson, Department of Physical Education for Women, University of Southwestern Louisiana, Lafayette, Louisiana.

A program of developmental motor activities built around the concept of neurological organization as practiced at the Developmental Clinic, University of Southwestern Louisiana, Lafayette, is presented. Fundamental to this approach is the premise that neurological organization is essential to visual perception, spatial relationships, reading skills, and writing, and that an improvement in neuromotor area should contribute to increased performance in academic areas as well. Four recognized levels of development--moving arms and legs without forward movement; crawling; creeping; and walking--are demonstrated by student clinicians who are working with youngsters in different activities and with a variety of approaches which promote neurological organization.

The Santa Monica Project (16mm, color, sound, 28 minutes). AIMS Instructional Media Services, Inc., P.O. Box 1010, Hollywood, California 90028.

The Santa Monica Project engineered classroom demonstrates a clearly designed set of educational procedures easily applied to typical public school classes for educationally handicapped and/or emotionally disturbed children 6 to 15 years of age. It is designed to bring overt behavior of

children into line with minimum standards required for learning. The program helps lengthen children's attention span, promotes successful accomplishment of carefully graded tasks, and provides an enviornment with rewards and structure. The hierarchy of educational goals described includes the following sequence: attention, response, order, exploratory, social, mastery, achievement. Each student works within this structure at tasks for which he is rewarded in terms of attaining goals and fulfilling objectives in which he needs special attention. Although many of these children may regress and take a step backward, this program and special approach is designed to help him then take two forward.

Therapeutic Camping (16mm, sound, color, 28 minutes). Eastern States--Department of Health and Welfare, Office of Health and Education, Augusta, Maine; National Association for Mental Health, 267 West 25th Street, New York City; New York University Film Library, 26 Washington Place, New York City; Education Film Library, Syracuse University, New York; New York; Ohio State University, Columbus; The Devereux Foundation, Devon, Pennsylvania; Bureau of Mental Health Services, Harrisburg, Pennsylvania; and Audio-Visual Aids Library, Pennsylvania State University, University Park. Southeastern States--Audio-Visual Bureau, Extension Division, University of North Carolina, Chapel Hill. Southern States--The Devereux Schools, Victoria, Texas; Division of Extension, Visual Instruction Bureau, University of Texas, Austin. Mid-West States--Maurice Iverson, Assistant Director, Bureau of Audio-Visual Instruction, University of Wisconsin Extension Division, P.O. Box 2070, Madison. West Coast--The Devereux Schools, Santa Barbara, California.

Although this film is built around a case study of Tom, an emotionally disturbed boy, rationale, philosophy, activities, approaches, and values derived from the camping program depicted are equally appropriate and applicable for those with other handicapping conditions. Emphasis is on a pre-planned, multidisciplinary attack in planning, and implementing a program designed to meet needs of each participant. A variety of activities is shown and discussed in terms of their social, physical, and emotional contributions to each camper. The program makes every effort to remove an individual's negative attitudes and behavior patterns by stressing the positive.

A Time for Georgia (16mm, sound, black and white, 15 minutes). New York University Film Library, 26 Washington Place, New York 10003.

A group of four year old children identified as autistic is presented through this film. Characteristics and behavioral traits, especially those affecting learning and interpersonal relationships, are discussed. The importance of early identification and related early treatment is emphasized along with need for a great deal of individual and personalized attention. Within the class shown are six children with two teachers. Types and range of behavior of these children create many diverse needs. Among specific traits that are identified as major problems are routine, resisting, doing for ones self, inconsistencies, and regressions in behavior. Many play and

and recreational activities are used as means of reaching these children. Although gains have been slow with this group, they have been significant for several of the children. Children of this type not in programs by the time they are five years of age have greatly reduced chances of succeeding. Extremely important in the entire process is the role, support, and sensitivity of other members of the family.

The World Outside (16mm, sound, black and white, 30 minutes). S-L Film Productions, P.O. Box 41108, Los Angeles, California 90041.

Children who appear in this film were selected from a group of 20 children diagnosed as autistic. They participated in a research program at Frostig Center in California in which factors operative in successful therapy with such children were studied. The film shows exerpts from therapy sessions of two blind and severely emotionally disturbed children. Each of these children was one of sets of twins born prematurely; neither had much previous contact with the world about them. Dale shows much progress in week-by-week sessions. A major emphasis to gain physical vocal contact is through perceptual experiences with toys. Musical toys are important in providing a means of developing concept and feel of controlling ones environment. As degrees of independence and confide[illegible] are shown, Dale begins to explore space, has fewer tensions and is m[illegible] relaxed. To meet his need for group experiences, he is enrolled in a nursery school in which there is much play and playground activity. Barbara, on the other hand, was filmed once during a therapy session and once in public school. Symbolic behavior is shown with various toys and through different play sequences. Scenes illustrate her ability to work quickly through traumatic experiences by acting them out through play. Autistic children in particular need structured and planned opportunities to venture from their world into the world outside. Individualized educational experiences are extremely important as some of these children require development of their perceptual capacities; others need more emphasis on symbolic gratification of thwarted or unfilled needs followed by real satisfactions. All require a close and understanding relationship with a flexible therapist who will arrange the therapeutic program to meet the changing needs of the child.

Moran, Joan May, and Leonard Harris Kalakian. Movement Experiences for the Mentally Retarded or Emotionally Disturbed Child. Minneapolis, Minnesota: Burgess Publishing Co., 1974. 387 pp.

Movement experiences, as defined by these authors, include all of those activities that involve movement of the entire body or its various parts. These activities may be carried out alone or with others, and with or without the use of equipment. For the mentally retarded or emotionally disturbed child, movement experiences facilitate the development of the physical, social, and emotional self. This book provides background information and activities on a variety of movement experiences: physical fitness, motor skills, play therapy, movement education, music and dance, perceptual-motor development, gymnastics, and aquatics. A chapter is devoted to the use of movement experiences to teach other school subjects, and there is a special section on innovative equipment.

Developmental Music Therapy. Athens, Georgia: Rutland Center, Technical Assistance Office (698 N. Pope Street, 30601), August 1974. 75 pp. Available from National Association for Music Therapy, Inc., P.O. Box 610, Lawrence, Kansas. 66044. $3.00.

At the Rutland Center for emotionally disturbed children (Athens, Ga.) the developmental therapy program encompasses four curricular areas: behavior, communication, socialization, and academics. Music therapy was added to this program as a means of directing children's progress in the four curricular areas. This project report describes the use of music therapy at Rutland Center with emotionally disturbed children at four stages of developmental therapy (minimal response to environment; response to environment within therapy situation; beginning to use individual skills for group participation; ready for group problem solving and individual expression). Guidelines for implementing developmental music therapy at each stage are detailed. In addition, a home music program's objectives and implementation are given. Results of the program indicate that children involved in this project did make gains.

Grosse, Susan J. and Monica C. Becherer. Physical Education Activities for the Uncoordinated Student. West Nyack, New York: Parker Publishing Company, 1975 (236 pp)

Over 200 diagrams and illustrations and 300 physical education class-tested activities are presented so that teachers can encourage every student to participate at his/her own individual level and slower students can work into the mainstream of class participation. Exercises and activities can be used in various settings -- i.e., gymnasium, playground, classrooms -- sequential arrangement allows for progressive development of each child. Students are thus able to improve weak areas and integrate learned skills into their total functioning. Each child can gradually form a hierarchy of activities for skilled participation and coordinated movement. Areas covered include recognizing the uncoordinated student, warm-up coordination exercises, obstacle courses, exercise combinations to add challenge, mat work, combining activities, setting up a circuit, skipping rope, hand apparatus exercises, trampoline use, sports activities, relaxation, music as an aid to coordination, and planning the total program.

Dewey, Margaret A. Recreation for Autistic and Emotionally Disturbed Children. Washington, D.C.: U. S. Government Printing Office, 1973. 18 pp.

This booklet presents some recreational interests of children who have been called autistic at some time in their lives. Its preparation stems partially from volunteer personal contact and correspondence with over a hundred parents during 1970-72 and from a questionnaire designed to elicit information from parents and professionals which would describe recreational activities that appeal to these children. Response rate exceeded 50 percent. Benefits of recreation for autistic children, common sense considerations and ways to begin are discussed in the first part of the book. Activity areas include toys, collections, music, travel, arts and crafts, playground equipment, dramatics, dance, games and sports, and outdoor activities. Other specialized interests included mathematics, astronomy, weather, electricity, and calendars. Parents should not exclude the recreation potential of activities not usually considered enjoyable such as shopping for groceries, driving nails, preparing food and shoveling snow. Questions to answer in evaluating activities are a unique feature of this book.

Ulrin, Donald M. Art for Exceptional Children. Dubuque, Iowa: William C. Brown Company Publishers, (2460 Kerper Avenue, 52001), 1972. 146 pp.

The teaching of art to handicapped children and the use of art as therapy are the main topics of this book. Part I focuses on the nonhandicapped child -- how he or she structures reality and the phases of his/her development as reflected in art. Part II, the greater part of the book, is devoted to the handicapped child. Separate chapters cover mentally retarded, physically handicapped (orthopedically, neurologycally, visually, and hearing impaired), emotionally disturbed, and multiply handicapped children. Suggestions are given for enhancing the art experience of children with various handicapping conditions. Numerous drawings illustrate each chapter and are interpreted by the author.

Riordan, Jennifer Talley. They Can Sing Too: Rhythm for the Deaf. Leavenworth, Kansas: Jenrich Associates, 1971. 67 pp.

Music has been accepted as an aid to language, social, and motor development. This book was written to help teachers of preschool (3-6 years) deaf children in teaching rhythm as a part of speech training. However, the book has also been found useful by teachers conducting music programs for socially maladjusted, emotionally disturbed, mentally retarded, and brain damaged children. The book is divided into four sections: short songs; large muscle, creative activities; games, dances and marches; and rhythm time-beats. Teaching suggestions are given at the end of each section.

Lindsay, Zaidee. Art and the Handicapped Child. New York: Van Nostrand Reinhold Company, 1972. 144 pp.

Intended primarily for special education teachers, this book may be useful to anyone who provides creative art activities for physically or mentally handicapped children. The author devotes a brief chapter to each of the following conditions: visual handicaps, auditory handicaps, autism, brain damage, and mental retardation. The major portion of the book deals with descriptions, directions for and photographs of art activities for handicapped Children. Activities are suggested in the areas of drawing, painting, modeling, carving, placing, printing, and puppets.

Gillies, Emily. Creative Dramatics for All Children. Washington, D.C.: Association for Childhood International, 1973. 65 pp.

This book presents six basic principles for using creative dramatics with all children: tuning in the senses; listening and recording; pantomine, rhythms, and movement; presenting a story; discussion and constructive criticism, and working with a child who is open. Through the use of these principles, one is shown how to develop a sequential program of creative dramatics which enables children to learn that speaking aloud with ease and conviction, and interacting with others creatively can bring deep satisfaction. Readers are taken through the processes with three different groups: children for whom English is a second language, emotionally disturbed children, and brain injured children. Twenty resources for creative dramatics are provided.

Jennings, Sue. Remedial Drama: A Handbook for Teachers and Therapists. New York: Theatre Arts Books (333 Sixth Avenue, 10014), 1973. 116 pp.

This handbook explores the values of drama as therapy for adults and children with physical, psychological, and/or communication problems. Therapy in this context does not necessarily mean treatment and need not be verbal. The majority of the book is devoted to practical "things to do" in a drama program. The book is intended for non-drama specialists such as teachers, social workers, occupational therapists, nurses, and psychologists seeking new ideas. Author emphasizes that most people already have a great deal of experience in drama, but they refer to it by other names such as "games." Appendices include resources for further reading, for training, and for additional information on drama and related fields.

Wethered, Audrey G. Movement and Drama in Therapy: The Therapeutic Use of Movement, Drama & Music. Boston: Plays, Inc., 1973. 128 pp.

This book explores the role of body movement, drama and music in treatment programs for emotionally disturbed persons. Basic principles of movement are discussed and the practical uses of movement activities, drama, and music are explored. Author describes her own experiences in working with patients and provides specific activity ideas that she has used. Illustrations supplement the discussion.

Descriptors: Emotionally Disturbed, Therapy, Socio Drama, Role Playing, Music, Music Activities, Music Therapy, Drama, Movement Activities, Kinetics.

Jack, Harold K., and Leon E. Johnson, editors. Physical Activities for Mentally and Emotionally Handicapped Children. (Produced by a seminar in Physical Education for Mentally and Emotionally Handicapped Children. Supported by NIMH Grant #5 T21 MH 11810). Philadelphia, Pennsylvania: Temple University, 1971. 60 pp. (Available from IRUC in xerox form, $5.25.)

This manual is intended to serve as a guide for teaching physical and recreational activities to mentally and emotionally handicapped children. Activities presented emphasize the development of motor skills, physical conditioning, and body movement. There are over 200 activities in the areas of games and relays, developmental stunts and exercises and developmental rhythms. Appendices include teaching suggestions and instructions for building home-made equipment.

Outdoor Education Experiences for Emotionally Handicapped Children and Youth. Proceedings from the Special Studies Institute, June 7, 8, and 9, 1972. Special Studies Institute Project under PL 91-230. Plattsburgh, New York: State University College of Arts and Science, and Albany, New York: New York State Education Department. 153 pp. Available from IRUC in xerox form, $9.95.

These proceedings represent a first attempt in New York state to meet specific needs of emotionally handicapped persons through an outdoor education approach. This approach is defined as using the outdoors to create unique learning situations to enrich curriculum on all levels for all subjects. The keynote address describes historical roots of outdoor education as well as discusses outdoor education's uniqueness for emotionally handicapped persons. Twin Valleys Outdoor Education Center's summer project, which offers outdoor education for disadvantaged children is described. Suggestions on resources available, planning, and financing outdoor education programs are presented along with curriculum aids in science, mathemetics, social studies, and art. An approach for evaluation is suggested and a selected bibliography in outdoor education and a list of references for supplemental information are included.

ORGANIZATIONS CONCERNED WITH AUTISTIC AND/OR EMOTIONALLY DISTURBED CHILDREN

Behavior Research Institute (BRI)
820 Atwells Avenue
Providence, Rhode Island 02909

National Association for Mental Health (NAMH)
1800 North Kent Street
Rosslyn, Virginia 22209

National Association of School Psychologists
1140 Connecticut Avenue, N. W.
Washington, D. C. 20036

National Consortium for Child Mental Health Services
1800 R Street, N. W., Suite 904
Washington, D. C. 20009

National Information and Referral Service for Autistic and Autistic-Like Persons
306 31st Street
Huntington, West Virginia 25702
Ruth Sullivan, Director

National Institute of Mental Health
5600 Fishers Lane
Rockville, Maryland 20850

National Society for Autistic Children
169 Tampa Avenue
Albany, New York 12208

University Advisors for the Emotionally Impaired
Eugene Pernell, Jr.
Associate Professor
Department of Elementary and Special Education
337 Erickson Hall
Michigan State University
East Lansing, Michigan 48824

Outside United States

Federation of Autistic Children's Associations of Australia
299 Penshurst Street
Willoughby North
New South Wales, Australia

International League of Societies for the Mentally Handicapped
Secretariat
12, rue Forestiere -B-
1050 Beuxelles, Belgium

Society for Emotionally Disturbed Children
1405 Bishop Street, Room 303
Montreal 107
Quebec, Canada

World Federation for Mental Health
Department of Psychiatry
University of the West Indies
Kingston 7, Jamaica

JOURNALS AND NEWSLETTERS CONCERNED WITH AUTISTIC AND EMOTIONALLY DISTURBED CHILDREN

Newsletters

CANHC-Gram
California Association for Neurologically Handicapped Children
P. O. Box 4088
Los Angeles, California 90051

The Emissary
Texas Research Institute of Mental Sciences
1300 Moursund Avenue
Houston, Texas 77025

National Committee for Research in Neurological and Communication Disorders Newsletter
927 National Press Building
Washington, D. C. 20045

NSAC Newsletter
National Society for Autistic Children
169 Tampa Avenue
Albany, New York 12208

Journals

Journal of Abnormal Child Psychology
V. H. Winston and Sons
1511 K Street, N. W.
Washington, D. C. 20005
(quarterly; $30 per year)

Journal of Autism and Childhood Schizophrenia
Scripta Publishing Co.
1511 K Street, N. W.
Washington, D. C. 20005
(quarterly; $29 per year)

Schizophrenia Bulletin
Schizophrenia Center
NIMH
Sold by: Superintendent of Documents
U. S. Government Printing Office
Washington, D. C. 20402
(quarterly, $12 per year)

RESOURCE PERSONS

The following individuals have expertise in working with emotionally disturbed and/or autistic children in physical education, recreation, or related areas. These persons will be able to provide additional information and answer specific questions, or they can refer interested persons to other sources of information. In addition, persons requiring more information should write to contact persons listed in the Program Section of the packet (pp. 69-75) and organizations listed on page 119.

Linda Anderson
Educational Movement/Dance Consultant
115 Pheasant Drive
Marietta, Georgia 30062

Margaret A. Dewey
2301 Woodside Road
Ann Arbor, Michigan 48104
(former Recreation Chairman, National Society for Autistic Children)

Robert Roice
Program Specialist
Developmental and Remedial Physical Education
Division of Special Education
Office of Los Angeles County Superintendent of Schools
9300 East Imperial Highway
Downey, California 90242

Robert Schindler
Physical Education Director
Beech Brook
3737 Lander Road
Pepper Pike, Ohio 44124

Dorothy Singleton
Jose Sepulveda School
12501 South Isis
Hawthorne, California 90250
(physical education specialist)

Ruth C. Sullivan, Director
NSAC Information and Referral Service
306 31st Street
Huntington, West Virginia 25702

Frank Warren
Recreation Chairman
National Society for Autistic Children
105 East Edenton Street, #109
Raleigh, North Carolina 27601

Other possible resource persons identified through IRUC's recently updated state survey are:

David C. Gery
Program Director
Activity Therapy Department
Mental Health Institute for Children
1700 Hanover Avenue
Allentown, Pennsylvania 18103

Daniel Lewandowski
Director of Activities
Bar-None Boys Ranch
Route 2
Anoka, Minnesota 55303

Anne Norman
Recreation Therapist
Moccasin Bend Hospital
Moccasin Bend Road
Chattanooga, Tennessee 37405

James E. Roberts
Recreation Therapist
Rochester State Hospital
1600 South Avenue
Rochester, New York 14620